The Journal
of the
South Carolina Medical Association

VOLUME XLVI November, 1950 NUMBER 11

Neurosurgical Problems Of Infancy

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The general practitioner of medicine will encounter frequently certain congenital and acquired syndromes in infants in which the neurosurgeon can render considerable aid and comfort. Not only is the question of specialized treatment involved but in most instances, the more perplexing consideration of prognosis must be answered. Neurosurgical problems of infancy fall roughly into three major groups, which will now be discussed in sequence in some detail.

1. *Problems concerned with failure of fusion of mid-line neural structures.*

The complete or partial failure of embryonic development of the neural crest and its supporting mesenchymal structures permits the development of certain mid-line dorsal defects in the infant, ranging from complete exposure of the spinal cord or rachischisis, to the clinically unimportant spina bifida occulta. The most common prototype is seen in the lumbar region where it appears as a meningocele or a meningomyelocele. In the former instance, the protruding, cystic, translucent sac contains spinal fluid and meninges but no significant neural tissue. In the latter case, the sac or epidermal mass contains not only fluid and meninges, but the terminating spinal cord or cauda equina. In simple meningocele, the neurologic picture is that of a normal infant; in meningomyelocele are associated paraplegia and loss of bladder and rectal control. Similar lesions are fairly common in the cervical spine and less frequently noted in the thoracic spine, and all are found with varying defects in the underlying laminal arches.

In patients with severe neurological defects, i.e., those with meningomyelocele and paralysis, neurosurgical treatment is rarely if ever indicated. The exposed cord tissue and thin epidermis may be covered with penicillin or cod liver oil ointments. If spinal fluid is draining, the use of parenteral penicillin will control the onset of meningitis while spontaneous healing occurs. Concomitant hydrocephalus may accompany meningomyelocele and this combination of congenital defects represents an insurmountable problem. Rarely, an Arnold-Chiari malformation of the cerebellum may be relieved by surgical attack. The treatment of simple meningocele is neurosurgical. The specialist prefers to see such problems early after birth stabilization in order to plan the future technical removal, usually carried out at the age of 6 to 12 months. The prognosis in most cases is excellent.

Mid-line lesions of like origin occur in the cranium where they are known as encephalocele. They may contain fluid, meninges and ill-defined masses of glial tissue. They are termed rhino-encephalocele when they present in the nasal cavity and orbital encephalocele when they are visualized in a defect of the orbital plate. All encephaloceles demand a formal and elective craniotomy that may be done at a time period of choice. The prognosis, in most cases, is also excellent.

Congenital dermal sinus, a potential source of infection, appears as a small and often hairy dimple in the mid-lumbar region. Neurosurgical resection is indicated.

2. *Problems connected with alterations in skull size or contour.*

Mention has already been made of hydrocephalus developing with meningomyelocele and the frequent finding of congenital displacement of the cerebellar tonsils into the foramen magnum as its causative factor. The more common forms of congenital hydrocephalus, so readily recognized clinically, may be classified as non-communicating or communicating in type. When the diagnosis is suspected or established in the infant, the presence of a subdural hematoma must be clarified by subdural puncture in the lateral angles of the anterior fontanelle. If this is negative, the needle may be introduced into a lateral ventricle,

*Presented at the annual meeting of the South Carolina Medical Association, May 1950, Myrtle Beach, South Carolina, as part of an address "The Neurosurgeon and the General Practitioner" from the Duke Medical School and Hospital, Durham, North Carolina.

the first appearance of ventricular fluid giving a rough estimate of cortical thickness. The injection of 1 cc. of neutral phenolsulfonphthalein dye allows the differentiation between the two types of hydrocephalus. If no dye can be recognized at lumbar puncture in the spinal subarachnoid space, 30 minutes after ventricular injection, a non-communicating type hydrocephalus is present. A variety of pathologic lesions may be found in non-communicating hydrocephalus, including congenital atresia of the aqueduct of Sylvius, maldevelopment of the subarachnoid foramina, or in rare cases, a neoplastic growth. No method of conservative therapy has been of avail, including dehydration diets, stimulation of urinary excretion or repeated ventricular drainages. The treatment of choice is that of short-circuiting the flow of cerebrospinal fluid about the block by means of introducing a polyethylene tube in one lateral ventricle and leading it extracranially into the subarachnoid space of the foramen magnum, a procedure reported by Torkildsen in 1939.

In communicating hydrocephalus, dye introduced in a lateral ventricle appears shortly in the spinal subarachnoid space and this free communication can be verified by "bubble" encephalography or by studying the dynamics of combined ventricular and spinal punctures. Renal excretion studies are also helpful since dye held within the ventricular system, as it is in non-communicating hydrocephalus, will not show substantial excretion values. The removal of the choroid plexuses may help in this form of hydrocephalus but more promising results have been obtained by spinal subarachnoid—ureteral anastomosis with the connection being made by means of a polyethylene tube.

Some instances of congenital hydrocephalus become compensated and cease to show further abnormal head growth. Unfortunately, this form of spontaneous resolution often occurs only after irreparable damage has been done to vision and to the cerebral cortex. Head measurements should be compared to normal head - chest circumferences. Evidence of abnormal growth is an indication for neurosurgical intervention. Even in rigorously selected cases, the neurosurgical treatment of congenital hydrocephalus remains a hazardous undertaking, justified only by the crippling effects of the untreated disease process.

The counterpart of hydrocephalus, perhaps, is microcephalus where the essential pathologic factor is that of subnormal brain growth. Such infants are recognized by the small skull, "more face than head", which must be confirmed by comparative skull measurements. Tardy mental development aids in the recognition of this condition in older infants. The skull roentgenogram will show a small skull but intact suture lines and no evidence of increased intracranial pressure. There is no treatment for microcephalus except that of institutional care. Examination of the skull roentgenogram is all-important in the recognition of the various forms of craniosynostosis since this remediable congenital disturbance is characterized by absence of suture lines in its complete form and by the appearance of marked convolutional atrophy or the "hammered silver" change in the inner table of the skull. Whether the premature closure of suture lines is complete, as in the familiar turret skull, or incomplete, as in the common type of scaphocephaly, neurosurgical treatment is indicated as soon as the diagnosis is made and before the growing brain is unduly compressed by the unyielding skull. The craniectomy of new suture lines, held open by the interposition of sheets of polyethylene film, has proven to be a most satisfactory answer to this problem and the prognosis for preservation of vision and cerebral function in these infants is good.

3. *Trauma to the infants brain and skull of neurosurgical import.*

The infant suffers three distinct types of head trauma of neurosurgical import at the time of birth, and in early life may fall or be dropped and develop quasi-adult varieties of skull and brain injuries. About three-fourths of infants born of primiparas will show scalp injuries. The first, termed caput succedaneum, is a swelling on the presenting head of the fetus due to serous exudate beneath the galea which extends beyond suture lines and fontanelles. It will subside in 48 to 72 hours spontaneously and needs no treatment. The second, termed cephalohematoma, is a mass of subperiosteal blood, usually noted over the parietal bone, which does not extend beyond the suture lines. This hematoma will soften and be absorbed; aspiration may be followed by scalp infection.

Remarkable injuries may follow the application of forceps to the infant head in difficult labors. When the injury appears as a compound, depressed fracture, the principles detailed for adult injuries must be pursued. These include resuscitation, definitive operation and antibiotic therapy. Simple depressions, the so-called egg-shell fractures, will often expand without operative intervention. Their elevation, if necessary, is a simple technical matter.

The most important traumatic lesion of infancy is that of chronic subdural hematoma. There is no exact clinical picture characteristic of this lesion. Convulsions, vomiting, irritability, irregular temperature swings, associated with an accelerated head growth, muscle hypertonicity and hyperactive muscle-tendon reflexes should lead to early investigation. Such hematomas have been found in cachectic infants with sunken fontanelles. The diagnosis is readily established by puncture and aspiration of the subdural space and can only be made by this procedure. The technique is simple and rigid aseptic principles must be followed since infants are readily susceptible to infection. The hair is shaven in a generous area over the anterior fontanelle. The operator faces the head of the infant which is immobilized by the hands of an assistant. The lateral angles of the anterior fontanelle are the

sites of puncture and both subdural spaces must be investigated. A #20, short-beveled needle is introduced at an angle through the scalp and then redirected through the dura at right angles to the skull contour. If a hematoma is present, bloody or xanthrochromic fluid will be obtained immediately. Repeated drainage of the subdural space is desirable to control intracranial pressure during the time period required to prepare infants for operation. Craniotomy with removal of the inner and outer membranes is necessary for the cure of subdural hematoma in infants. Convulsions, visual loss and mental retardation will follow delay in diagnosis and treatment.

Violent and accidental death forms the sixth most common cause of mortality in the age group from birth to four years of age. Head injuries in the first year of life are relatively uncommon. They occur when the infant is unprotected from the hazards of his environment and not from its own activity. Treatment is no different from that required for injuries of adult lives.

The Treatment Of Diabetes In Children

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The number of children with diabetes in the average doctors practice is small. Statistics vary anywhere from 5-8% in some localities to less than 0.5% in others. Fewer cases occur in the south than anywhere else, so perhaps the latter figures or even lower best represents the incidence of diabetes in children in this State. It has been estimated that there are at least 1,000,000 unrecognized diabetics in the U. S. They are all related to diabetics so the families should be followed.

According to the laws of inheritance diabetes should occur as follows, provided it is a recessive characteristic as has been stated. All children from the union of two diabetics will eventually develop diabetes if they live long enough; one-half of those from the union of a diabetic with a non-diabetic from a diabetic family; one-fourth of those from the union of two non-diabetics from diabetic families; and none from the union of a diabetic with a person from a non-diabetic family. The effect of the use of ACTH on inheritance is not yet known. A logical theory of the etiology of diabetes is that one of the genes produces overactivity of the pituitary which in turn wears out the pancreas.

There are two criteria for diagnosis, glycosuria and hyperglycemia. Neither is sufficient without the other. Blood levels for sugar are; fasting 130; post prandial venous blood 170; and capillary blood 200mgm%. Non diabetic members of diabetic families are always under suspicion of diabetes and should have a glucose tolerance test to indicate a tendency or likelihood of development.

Diabetes is fifty times more common over 65 years of age than under 15, but those under 15 are usually more difficult to adjust than an older person. The onset in children is often explosive instead of gradual, and often follows infection.

After a diagnosis of diabetes has been made in a child there are certain steps to be taken to return him to an active and happy life. The aims in treatment are:

(1) To find the dosage of insulin which most nearly maintains glycemic equilibrium.

(2) A diet that is sufficient for normal growth and development.

(3) Teach the child, if old enough, and parents so that the diabetes may be managed at home.

(4) To dispel the old idea that a person with diabetes is an invalid. The contrary is true, and the child should be encouraged to lead a normal life.

In general those are the aims of treatment but this paper will lay emphasis on a recent innovation in the treatment of diabetes in children. Only hospitalized patients can be placed on this regime. It was worked out by Dr. J. M. Brush of Babies Hospital of New York City and represents an effort, early in the disease, to put the islets of Langerhans at such complete rest, by giving insulin to the point of tolerance, that there is regeneration of the power to create insulin again. Judged by the results in children under 14 years this aim would seem to be reached because from 6-10 days after treatment is instituted the child goes into insulin shock which shows that the islets are once again secreting significant amounts of insulin. Gradually, so that too much load will not be placed on the pancreas too suddenly, the dosage of insulin is decreased after improvement commences, which is manifested by this shock.

When diabetes is first discovered the dosage of insulin with this regime can be reduced to below 10 units per day before the child is dismissed from the hospital. It doesn't cure diabetes but it apparently

*Presented at annual meeting, S. C. M. A., Myrtle Beach, May 1950.

does allow the pancreas to assume at least partial function for some extra years.

For the child in diabetic coma, the following is the outline of treatment:

(1) At the time blood is drawn for blood sugar—normal saline of Ringer's solution should be started as continuous intravenous drip. The amount depends upon the size of the child and the degree of acidosis. 25-75 cc per pound of body weight per 12 hours up to 25 pound child. 1000-3000 cc for older children.

(2) Gastric lavage is very helpful in all cases because of accumulated fluids that may be in the stomach.

(3) Insulin—Plain or crystalline

Age	Initial dose of insulin
1 year	20-30 units
5 years	30-60 units
10 years	50-70 units

In extreme cases part of this may be given intravenously. The second injection may be given in 1-2 hours in about half the amount of the initial dose. Following ones are from 3-4 hours and vary with the blood sugar. Another good method is to adjust the dose of insulin to the reaction of the urine. After the child has regained consciousness he should be started on the Brush regime as soon as possible. If he is conscious on admission it should be started immediately.

THE BRUSH REGIME

STEP 1. The total daily caloric requirement is calculated from Table 1 on the basis of age and weight. If there is obvious need for more or fewer calories the number may be adjusted upward or downward, but should not be changed very much.

TABLE 1

Age Years	Calories per kilogram daily
2	80-100
5	70
7	65
10	55
12	40-50

STEP 2. The details of the diet correspond to the calculated total daily caloric requirements are derived from Tables 4 and 5. See attached tables.

The entire diet can be prepared from these two tables. Milk in moderate amounts is given at 10:00 A. M. and 3:00 P. M. to offset the hypoglycemic effect of the preceeding doses of insulin. Other foods might be used for the same effect. The milk between meals is useful in that it controls the desire for more food than needs dictate.

The remaining carbohydrates of the diet is divided equally among the three chief meals. The protein and fats are fairly equally distributed. The noon and evening meals are interchangeable. The values for vegetables, fruits, and substituted foods are calculated in the usual manner. Since rarely does a diabetic child quibble over food, no allowance need be made for dietary whims. Refusal of a small part of the diet calls for no compensating substitutes, but if most of the meal is refused appropriate replacements of carbohydrates are made.

STEP 3. The initial daily requirement of insulin is numerically equal to 2/3 of the number of grams of fat in the diet.

The method of arriving at the number of units of insulin per day should not be interpreted as a suggestion that the prime purpose of the insulin is to aid in the utilization of fat. The insulin requirement is based on weight and age and it happens that 2/3 the number of grams of fat represents the number of units of insulin required. For example—suppose the child requires 1200 calories—according to Table 4 the number of grams of fat is 60. Hence 40 is the insulin requirement.

Brush states that in about 1/2 the cases the calculated dosage of insulin will regulate the hyperglycemia. If the urine does not become almost sugar free in 36 hours, (2 plus or less) the amount of insulin should be raised by not more than 10% daily until the glycosuria ceases. Shock is reduced by reducing the dose not more than 10% or even less daily.

STEP 4. In dividing the insulin daily dosage the aim is to keep the urine sugar free night and day. This can best be accomplished by 4 daily injections—4 A. M., 1/2 hour before breakfast, at lunch and either at or 1/2 hour before the evening meal. Shock is most apt to occur before the noon or evening meal. For the sake of convenience the 4 A. M. dose is determined first. The 4 A. M. dose is determined from table 2.

TABLE 2

Guide to the 4 A. M. insulin requirement

Total daily dose units	4 A. M. dose units
0-20	0
21-30	1
31-40	2
41-50	3
51-60	4
61 and more	5

STEP 5. To determine the dosage at the meal time—subtract the 4 A. M. dose from the total daily requirement. The remainder to be divided into 4/7 before breakfast, 1/7 before the noon meal, and 2/7 before the evening meal. Thus if the total is 60 units, the calculation is 60 minus 4 equals 56, 4/7 of 56 is 32, 1/7 of 56 is 8, and 2/7 of 56 is 16. The child would receive 4 units at 4 A. M., 32 units 1/2 hour before breakfast, 8 units at noon, and 16 units 1/2 hour before or at the evening meal.

Occasionally it is necessary to diverge from this schedule because of shock and then no more than 2 to 4 units.

STEP 5. When shock manifests improvement after treatment for 6 to 10 days the total amount of insulin is reduced by 1 unit the first day, 2 units the second day, and then by 7½% of the original dose daily until the 30 units level is reached. Below the level of 30 units reduction should be carried out according to table 3.

TABLE 3

Schedule for the administration of insulin on successive days when improvement has reduced the daily requirement below 30 units.

Daily Total	Before Breakfast	Noon	Before Supper
28	16	4	8
25	15	4	7
22	14	2	6
19	13	0	6
17	12	0	5
15	11	0	4
13	10	0	3
11	9	0	2
9	7	0	2
For total amounts below 9 follow schedule A or B			
A. If initiating dose was above 40 units			
	7	0	0
	5	0	0
	3	0	0
B. If initiating dose was 40 units or less			
	7	0	1
	7	0	0
	6	0	0
	5	0	0
	4	0	0
	3	0	0
	2	0	0

Within 6 to 10 days, the pancreas begins to function again producing signs of shock usually around 11 A. M. or 4 P. M. The total dose is reduced by 1 unit the first day, and 2 units the next. Rapid reduction at this point slows recovery. Prior to 6 days of treatment shock is looked upon as an indication to regulate the dosage of insulin, after 6 days as an indication of recovery. The amount of insulin administered is maintained in the 4-1-2 ratio. The 4 A. M. dose is lowered in accordance with table 2. When the total daily requirement reaches 20 the 4 A. M. dose is stopped. When it reaches 20 the noon dose is stopped. The end dose is usually 10% of the original regulating dosage. Total daily amounts below 8 are given as a single dose.

The desire to increase the diet at times is great, but hunger must not be the indication to increase the caloric intake. Hunger is an indication that the patient is improving and is due to hypoglycemia. This method tends to reduce the occurrence of shock, but it must be awaited before the insulin is reduced. At the first sign of hypoglycemia part of the next meal should be given promptly.

During the entire regime, Dr. Brush feels that the determination of the sugar in the urine collected at the beginning of the meals and at midnight and 4 A. M. is a much better method of estimating the progress of the treatment than isolated blood sugar determinations. Isolated occurrences of glycosuria usually indicates an infection, an emotional upset, or stealing from a neighboring tray.

The children are allowed up as soon as the regime is started.

From Dr. Brush's experience, he feels that if a diabetic child is diagnosed early in the disease and if he receives the regime outlined here, his pancreas at first receives a rest then regenerates to take over most of the work of the exogenous insulin. It is essential to keep the child in the hospital and on a very strict diet. Of 39 patients treated at Babies Hospital in a 10 year period, only 4 were considered failures. In a year's experience the authors have treated three patients with this method. One a boy 14 years of age must be considered a failure as far as reduction of insulin is concerned, but the other two left the hospital taking less than 15 units of insulin a day. Probably the greatest advantage of this method of treatment is its simplicity and the fact that anyone can carry out the simple steps necessary. From a physiological standpoint it would seem to be the logical method to use in children who have never received insulin before.

1. Brush, J. M.; American Journal. Diseases of Childhood 67:429, 1944.

2. Nelson; Textbook of Pediatrics, 5th Edition. Saunders 1950—1422-1433.

3. Grulee & Ely; The Child in Health and Disease, Williams and Wilkins Co.; 1948—857-863.

TABLE 4

STANDARD DIABETIC DIETS

Total Calories	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
DISTRIBUTION approx. No. of grams														
Carbohydrates	70	80	85	100	110	120	135	145	155	165	175	190	200	215
Protein	40	45	50	50	55	60	60	65	70	70	70	75	80	85
Fat	40	45	50	55	60	65	70	75	80	85	90	85	100	100
Breakfast (7:30 A. M.)														
Fruit, 12% group	75	75	80	100	100	100	100	100	110	120	120	150	150	150
Cereal	10	10	10	15	15	20	20	20	20	20	20	20	25	30
Egg, not by weight	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bread	--	--	--	--	--	--	10	15	20	25	30	30	30	30
Butter	5	5	5	5	5	5	5	10	10	15	15	15	20	20
Milk	100	150	150	150	150	150	150	150	150	150	150	150	150	200
Milk (10:00 A. M.)	100	100	100	100	150	150	150	150	150	150	150	150	150	150
Noon Meal (12 noon)														
Meat	30	30	30	30	30	50	50	60	60	60	70	70	70	70
Potato	--	--	--	--	50	65	75	75	75	75	75	75	75	85
Vegetable, 3% group	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Vegetable, 6% group	--	50	100	100	--	--	50	100	100	100	100	100	100	100
Bread	--	5	5	10	10	10	10	10	10	10	15	20	30	30
Milk	100	100	100	150	150	150	150	150	150	150	150	150	150	150
Fruit, 12% group	100	100	100	100	100	100	100	100	100	110	120	130	130	150
Butter	--	5	5	10	10	10	10	10	10	15	15	20	20	20
Milk (3:00 P. M.)	100	100	100	100	150	150	150	150	150	150	150	150	150	150
Evening Meal (5:00 P. M.)														
Meat or substitute	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Potato or substitute	--	--	--	--	50	50	50	50	50	50	70	75	75	85
Vegetable, 3% group	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Vegetable, 6% group	--	50	50	100	--	--	--	--	--	--	--	50	100	100
Bread	--	--	--	--	--	5	15	20	30	30	30	30	30	30
Butter	5	5	5	5	5	5	10	10	15	15	20	20	20	20
Milk	100	100	150	150	150	150	150	150	150	150	150	150	150	150
Fruit, 12% group	100	100	100	100	100	100	100	100	100	120	120	120	120	150

TABLE 5

Groups of food according to content of carbohydrate

3% Group	6% Group	9% Group	15% Group
Asparagus	Eggplant	Beets	Parsnips
Broccoli	Green peppers	Brussels sprouts	Peas, fresh
Cabbage	Kale	Carrots	
Cauliflower	Okra	Onions	
Celery	String beans	Peas, canned	21% Group
Cucumber	Turnips	Rutabagas	Lima beans
Mustard greens	Winter squash		Navy beans
Radishes Romaine			
Sauerkraut			
Spinach			
Summer squash			
Tomatoes			
Turnip greens			

Lettuce and mushrooms may be used as desired

FRUITS, fresh or juice-pack

6% Group	12% Group	15% Group	30% Group
Cantaloup	Apricots	Apples	Cooked dried apricots
Honeydew melon	Cherries	Blueberries	Cooked dried prunes
Strawberries	Oranges	Grapes	
Watermelon	Peaches	Pears, fresh	
9% Group	Pineapple		
Grapefruit	Plums	21% Group	
Tangerines	Raspberries	Bananas	
	Pears, canned		

Substitutes for potato

Corn	Macroni	Rice	Spaghetti

Lean meats and fish (cut off all visible fat)

Beef	Liver	Cod	Haddock
Chicken	Turkey	Fillet of sole	Salmon
Lamb	Veal	Flounder	Scallops
		Halibut	

15 Gm of bread may be substituted for 50 Gm. of potato.
30 Gm of cheese or one egg may be substituted for 30 Gm. of meat.

The Diagnosis And Clinical Significance Of Iron Deficiency Anemia*

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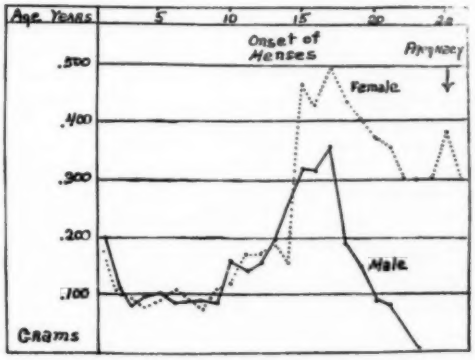
The general principle of treating anemia with iron is one of the foundations of medical therapeutics, but it is only during recent years that fundamental work has been completed which enables us to understand more clearly the physiology of iron metabolism and the indications for iron therapy. Through the use of radioactive isotopes it has been possible to give, either orally or by injection, a small quantity of "tagged iron" and follow its absorption, the time of entrance into the hemoglobin cycle, its appearance in storage depots and excretion from the body.[1, 2, 3, 4] The basic understanding of iron metabolism which these and other studies reveal, gives a more significant status to the iron deficient state, and warrants re-emphasis of the diagnostic importance of iron deficiency anemia.

Iron absorption seems definitely demonstrated to be a selective process by which the need of the body at a given time governs to a large degree the amount which is taken up from the bowel.[5] This absorption is probably determined through the agency of an iron containing protein substance, found in the wall of the duodenum and upper small bowel. This protein, which has been named "Ferritin" has the ability to saturate itself up to as much as 23% with iron, and, once absorbed into this protein combination, the iron is available for rapid transfer over into the blood stream and thence for utilization in the body.[6] The exact site of iron absorption is not definitely clear, but it seems likely that a majority of absorption takes place in the duodenum and upper small bowel, with the colon participating little or not at all in iron metabolism.[7]

Much emphasis in the past has been placed on the absence of free hydrochloric acid from the stomach for the development of iron deficiency. It is likely that there is some retardation of absorption in its absence but iron absorption is normal in the great majority of cases with achlorhydria and a rapid therapeutic response to ferrous sulphate can be obtained. It would seem, therefore, that achlorhydria may accelerate the development of iron deficiency but is rarely primarily responsible for it.[8]

Absorption and dietary intake assume much greater importance in the female than in the adult male. This fact can be seen from a graph of the body's annual iron requirements taken from the work of Heath and Patek.[10] (Figure I). In the female who must constantly replace the body iron lost in normal menses, the iron requirements remain elevated, but in the male after the growth period of adolescence, the body's annual need for iron falls to an exceedingly low level. This is a most important fact which will be emphasized later, for the presence of iron deficiency in the male cannot be blamed on a greater need and rarely on poor absorption. Thus it nearly always must be assumed to be evidence of blood loss.



In recent studies of iron metabolism, one finding has been outstanding: the great economy with which the body stores of iron are conserved and how it is efficiently re-utilized through the cycle of hemoglobin formation. The body has very limited ability to excrete iron, and, in the absence of blood loss, the daily loss of iron is less than one mg., and this figure cannot be exceeded even though iron stores are overloaded.[1, 9] Practically no iron is excreted in the urine, and the total loss is via the bile and stool. Thus three factors control iron metabolism: selective absorption governed by the body's need at a given time; rigid economy in its re-utilization in the body; and a minimal daily iron loss which apparently cannot be increased except by blood loss.

As a corollary to this fact that the body has such a limited ability to excrete iron, it has recently been pointed out that inherent danger can result from overloading iron stores.[11] Besides the danger from reaction, this has been another strong recommendation against the indiscriminate administration of intravenous iron, for such iron is "trapped" in the body. British publications have reported remarkable results from the use of such products,[12] and a preparation of saccharated oxide of iron for intravenous injection

*Presented at annual meeting, S. C. M. A., Myrtle Beach, May 1950.

has been recently introduced to the American market. There are undoubtedly instances in which parenteral administration is indicated, but it is the rare case where some iron preparation cannot be tolerated by mouth and effectively absorbed. Before one is justified in giving iron intra-venously, the existence of depleted body stores must be conclusively established and the fundamentals of body iron metabolism and its excretion must be clearly understood. Indiscriminate use can otherwise lead to excessive iron accumulations and possible hemosiderosis.

The determination that an anemia is of iron deficiency type can often be arrived at with considerable accuracy by using the results of simple laboratory tests available to all of us. In a case where anemia is suspected, three simple determinations should be done carefully: a red blood count, a hemoglobin and an hematocrit. From these determinations, we are able to calculate the "blood indices" which give a fairly accurate determination of the size of the red cell, the amount of hemoglobin which it contains by weight, and the percentage of hemoglobin saturation of the individual red blood cell. The manner in which these are determined is shown in Figure II, and, once we have completed these calculations we are in a good position to classify the anemia into definite type.

From the mean corpuscular volume, which measures cell size, we can tell whether we are dealing with a microcytic or a macrocytic anemia, and from the mean corpuscular hemoglobin and the mean corpuscular hemoglobin conscentration we can tell whether the quantity of hemoglobin is reduced and to what percent each cell is saturated. An iron deficiency anemia is typically a hypochromic, microcytic anemia, and, usually the mean corpuscular volume will be below 70, indicating a small cell, and mean corpuscular hemoglobin and mean corpuscular hemoglobin conscentration will be both reduced, showing that the cell contains a decreased amount of hemoglobin both by weight and percentage saturation. If the type of anemia with which you are confronted is microcytic and hypochromic, we can predict with considerable assurance that iron deficiency is the etiology, for the only significant exception to this is the Mediterranean, or Cooley's anemia, which is quite a rare form that responds to no type of therapy except transfusion.

Having determined that the anemia which we are dealing with is hypochromic and microcytic, and, in all probability represents an iron deficiency state, it is a simple matter to administer iron, and the hemotological results of such treatment are most gratifying. In extreme cases, the hemoglobin rise will be almost as dramatic as in a severe pernicious anemia, when first treated with B-12 or liver, but to treat such anemia with iron, not fully investigating its underlying etiology is one of the most grave, and, unfortunately, one of the more common happenings in medical practice. It is so very important to realize that iron deficiency anemia is not a disease; it is a symptom, and one is no more justified in treating an iron deficiency state without very closely searching for its etiology than one is justified in sedating abdominal pain without considering its possible underlying cause. Iron deficiency, until proven otherwise, means blood loss, and such blood loss may well be the only symptom present which will lead to the discovery of serious underlying disease.

This fact becomes a dictum which can never be disregarded, and, unless there is evidence of external blood loss, the great majority of iron deficiency anemias have gastro-intestinal bleeding as their basis. Repeated examination of the stool for occult blood becomes, therefore, a necessary part of every study of anemia. We have used the guiaic test which is very simply performed and deserves much more widespread use in office practice. The patient does not have to be prepared with a meat-free diet and a definitely positive reaction denotes significant organic bleeding in a high percentage of cases.[13]

Of the many types of gastro-intestinal lesions which cause occult blood loss, several deserve special mention. The gross melana from a hemorrhaging duodenal ulcer is well known but the fact that many chronic duodenal ulcers develop significant iron deficiency anemia from intermittent occult blood loss without ever having tarry stools, is perhaps not sufficiently appreciated. A hiatus hernia is a bleeding site which is commonly missed[14] and should be specifically sought for in any study of gastro-intestinal bleeding. The blood loss from hiatus hernias, as is also true for

FIGURE II.

THE MEASUREMENT OF THE SIZE AND HEMOGLOBIN CONTENT OF RED CORPUSCLES

		Normal
COLOR INDEX:	Hemoglobin, % (gm per 100 cc X 6.9) Red Cell Count Millions pr c.mm X 20	100
MEAN CORPUSCULAR VOLUME:	Vol packed red cells, cc pr 1000 cc Red Cell count, millions per c.mm.	86 - 91 Cubic microns
MEAN CORPUSCULAR HEMOGLOBIN:	Hemoglobin, Gm/100 cc Red Cell Count, Millions/c.mm.	27 - 31 micromicrograms
MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION:	Hemoglobin, gm. per 100 cc X 100 Vol packed red cells, cc per 100 cc.	32 - 36 percent

duodenal ulcers, is often intermittent and the stool examination may be guiaic negative unless repeated tests are made.

Anemia, of the iron deficiency type, as the presenting symptom of early ulcerative carcanoma in the gastro-intestinal tract cannot be too forcefully re-emphasized. To rule out such conditions becomes the primary obligation of any physician who has detected anemia or occult blood loss in the stool—for very early lesions may have this as their only sign and often persistent re-examination or the careful assay of equivocable X-ray findings may lead to early operative intervention and greater possibility of surgical "cure."

These comments are generally well known to all of us, but it is only too frequently that the existence of an iron deficiency anemia is missed, and little advantage is taken of the great help that the establishment of such a finding can be; for, once we have determined an anemia to be iron deficiency in type, the subsequent tracing of its specific etiology and the outlining of a therapeutic regime becomes a much less difficult problem.

This principle is illustrated quite clearly in the following case report:

Patient was a 56-year-old male whose chief complaints centered around precordial and epigastric pains which developed in August 1946. He consulted a physician several weeks after their onset, who found his hemoglobin to be 60%, with a red blood count of 4,100,000 giving a color index of .74. A gastro-intestinal series was done at that time and reported negative. In view of the character of the pain and the negative X-rays, patients's complaints were assumed to be cardiac in origin and the anemia was considered related to chronic malaria, which was suggested by the past history. He was treated with atabrine and a cardiac regime. An iron and vitamin preparation was given over a short period, which produced some improvement, but the pains continued.

Eighteen months later, February, 1948, patient was hospitalized because of an acute attack of precordial pain, dyspnea and orthopnea. At that time the red blood count was 3,000,000; hemoglobin 42%; color index 0.7. Poikilocytosis, anisocytosis and achromia were described on the blood smear. A gastro-intestinal series at this time was repeated and again reported negative. Two stool specimens were negative for occult blood. Patient received five units of whole blood during this hospitalization with marked symptomatic improvement. The anemia was still obscure in origin and considered possibly nutritional in type.

In September, 1948, patient was seen for re-evaluation. His pain had continued intermittently and there had been gradual loss of strength and increasing dyspnea on exertion. No evidence of external blood loss had been noted.

Blood studies at this time are listed on Figure III.

It can be seen from the blood indices that the red blood cells are quite small in size and the hemoglobin content by weight was markedly reduced. The percentage of hemoglobin conscentration of the individual cell was in low normal range and would typically be lower, but there seemed little doubt that we were dealing with a true microcytic, hypochromic anemia. The peripheral smear supported this impression, showing hypochromia with a moderate degree of anisocytosis and poikilocytosis.

The bone marrow smear (Figure V*) showed a shift to the left in the red blood cell series with a myeloid-erythroid ratio of 100/111. This is the picture seen in blood loss or destruction.

Since we were dealing with an adult male with no known source of external blood loss and the existence of a true microcytic hypochromic anemia seemed

* Figures 4 & 5 unavailable.

FIGURE III

Red Blood Count	3,620,000	White Blood Count	6,250
Hemoglobin	5.93 gms.	Differential:	
Hematocrit	17	Polys.	73%
Platelets	335,500	Lymps	20%
Reticulocyte	1.5%	Monocytes	6%
		Eosinophils	1%

Mean Corpuscular Volume—47 (Normal 80 - 94)
Mean Corpuscular Hemoglobin—16.3 (Normal 27 - 32)
Mean Corpuscular Hemoglobin Concentration—34 (Normal 33 - 38)

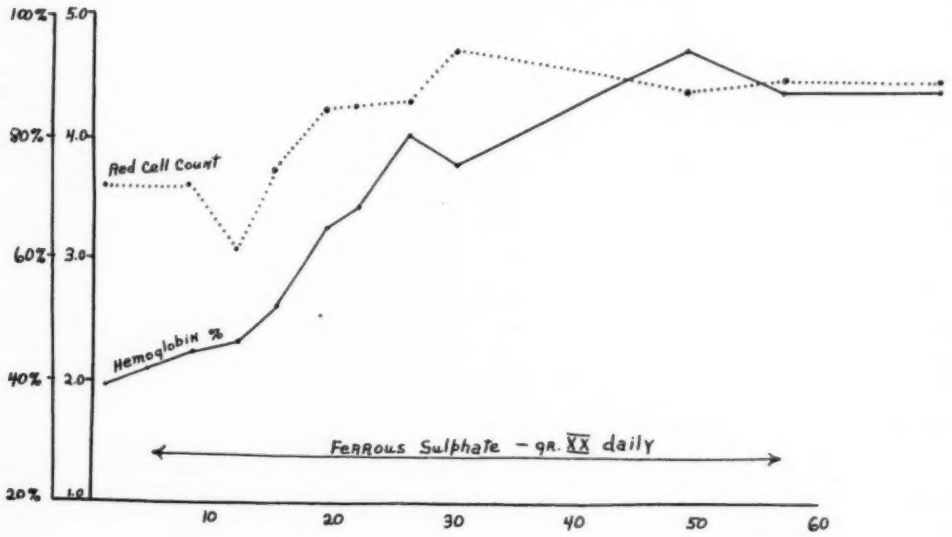
Bone Marrow Count:

Polys.	36	Basophilic Myelocyte	1
Metamyelocyte	33	Plasma Cell	1½
Myelocyte C	4½	Clasmatocyte	½
Myelocyte B	3	Megararyocyte	½
Myelocyte A	1		
Myeloblast	½		
Lymphocyte	9		
Young Lymphocyte	1½	Megaloblast	2½
Monocyte	1	Early Erythroblast	7½
Eosinophils	2	Late Erythroblast	35
Eosinophilic Myelocyte	4	Normoblast	66

MYELOID–ERYTHROID RATIO: 100 - 111

well established, the chances were overwhelmingly in favor of an iron deficiency state on the basis of gastro-intestinal bleeding. A guiaic testing of the stool for occult blood was positive, confirming this impression, and a carefully repeated X-ray of the stomach showed an ulcer crater in the duodenum.

Patient was placed on ferrous sulphate, grains 20 daily, along with an ulcer regime and his rapid hemotological response can be seen in the following graph:



On looking back at the previous blood studies it can be seen that the anemia was probably hypochromic from its onset, as indicated by the low color index of 0.74. If the fundamental fact that hypochromic, microcytic anemias are iron deficiency anemias had been taken as a primary premise at this time, and, realizing that this patient was an adult male with no history of external blood loss, gastro-intestinal bleeding would have to be assumed. The bleeding was undoubtedly intermittent since two stool tests were negative and the ulcer escaped detection on competent X-ray examinations. Even in the face of these negative findings, the character of the anemia would demand continued re-examination, and a search for a bleeding site in the gastro-intestinal tract.

Little need be said about the treatment of iron deficiency anemia. Ferrous sulphate, grains five, three or four times daily is the most economical method of treatment and will produce a maximum response. Liver, folic acid and B-12 have no special indication in iron deficiency states and there is no evidence that molybdeum, copper or ascorbic acid have any action of increasing the absorption or utilization of iron.[15, 16, 17] If there are co-existing nutritional deficiencies and some combined medication is desired, it is important that they contain an adequate therapeutic iron dosage and that the cost will not be so great as to result in abandonment of treatment before a full therapeutic effect is obtained.

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Rectal Bleeding*

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This problem of rectal bleeding is a very formidable one, because of its many causes, some of which are looked upon with simplicity, while other sources of such bleeding may prove most difficult to solve.

Bleeding from the rectum is most often, and perhaps fortunately, due to some of the more common lesions; such as hemorrhoids, fistulas, rectal polyps, fissures, diverticula, the various blood dyscrasias, chronic, ulcerative colitis, or even to the presence of a foreign body. These lesions are mentioned mainly to *emphasize the fact that their presence suggests and really demands* a thorough physical examination, regardless of age or sex. *Fortunate* is the patient, male or female, in the third to fifth or sixth decade of life, who is found to have *hemorrhoids only* as a causative factor of his or her paleness, weakness, fatigue, nervousness, and perhaps lack of interest in life generally. If the comparatively simple hemorrhoid is the bedraggled individual's *only ailment*, he certainly should consider himself most fortunate.

Of these so-called simple lesions *we must bear in mind* that the vast majority of the polypoid type, even the very small ones, show evidence of malignant changes when removed at operation. All polyps are not to be found within the reach of the examining finger, or even within the scope of the sigmoidoscope. These polyps are sometimes found high in the descending colon, or even disseminated throughout the entire colon. Polyps have been overlooked and not detected even with contrast enemas in the hands of excellent X-ray men. It was my fortune on one occasion to observe an exploratory operation for determining intestinal bleeding, although proper roentgenology had been done. This surgeon, a man of vast experience, unfortunately now deceased, after very thorough, and certainly astute palpation, detected a rather large polypoid growth high in the descending colon. The polyp was, of course, removed, and I am inclined to believe that the source of that man's hemorrhage was thus taken care of. That very distinguished surgeon felt that his patient would have no further trouble unless the polyp proved to be malignant and that metastasis had taken place. Because of unavoidable circumstances, I was unable to follow that particular case through as I should like to have.

*Read before annual meeting of 5th District.

Before passing on to other phases of this subject, it may be well to mention diverticulosis, one other of the common lower intestinal lesions. Here again the sigmoidoscope plays its important part in the differential diagnosis. Frequently have we heard X-ray men discuss the difficulty experienced in their endeavor to determine whether they were looking at a neoplasm or a diverticulum. May we stress the fact that the X-ray film is not infallible and that we must not assume the attitude of accepting film reports as final. It is not fair to the roentgenologists to hold him strictly accountable for any report that he may give, particularly when it pertains to the gastrointestinal tract, and especially to the lower bowel. The point to be clearly impressed here is that X-ray alone should not be expected to make the diagnosis. It is of great assistance when used in conjunction with your clinical knowledge at its best. In addition to the indispensable aid of the X-ray toward the proper diagnosis of colonic and rectal diseases, particularly the former, we must correlate the picture with the further aid of the laboratory. Usually all clinical laboratory findings, other than X-ray, have been evaluated before the roentgenologist's opinion is at hand.

There are many laboratory tests of paramount importance when it comes to investigation of the gastrointestinal tract. I say gastrointestinal because it may at times be almost impossible to state that rectal or intestinal bleeding has its origin at any specific location. We, of course, readily appreciate the fact that bright red blood is indicative of lesions about the anus or rectum, and that the darker blood suggests lesions of more remote origin. Therefore, secretory, exudate, liver function tests, and all clinical blood findings are indispensable from a point of diagnosis, as well as being helpful in the prognosis.

Let us not find ourselves in the habit of accepting hemorrhoids, regardless of extent, as precluding other much more serious lesions. It is said that 60 to 70 per cent of rectal lesions are within the range of the *average length index finger*, a very simple, practically effortless procedure, requiring a matter of seconds to accomplish. This simple procedure should be routine with all patients above twenty-five years of age and in younger individuals when there is the least doubt. Cancer has no respect of age. If the digital examina-

tion is negative in the above referred to bedraggled looking individual, then you have at your disposal the *anoscope, the proctoscope, and the rectosigmoidoscope.*

Also, it has been shown that more than 60 per cent of the malignant, or potentially malignant lesions of the large bowel occur in the area of the rectum and in that part of the sigmoid colon which is within the realm of a sigmoidscope; therefore, anyone who feels capable of proper use of the proctoscope should with *modesty and reservation* accept the responsibility for the diagnosis of a neoplasm in the rectum or sigmoid area if the growth has attained macroscopic proportions.

Statistics, *usually uninteresting* and *not always too dependable,* indicate that *50,000 persons* in the United States die annually from cancer of some portion of the colon. To an extent this is a *terrific indictment of medical practice,* because so many of these lesions are permitted to grow to large size and metastasize before the patient is given a thorough examination. However, in defense of the medical profession, it should be said that the average person does not, through ignorance, of course, heed the early signs of his malady, in spite of the propaganda and publicity we endeavor to disseminate. There are two signs, or symptoms, in connection with this subject that will bring the average person to his doctor for examination: First, *pain;* second, the sight of *blood.* The fact that *pain is a relatively infrequent early symptom* is perhaps one of the most distressing factors in the entire picture and it is responsible for delaying examination more than any other single factor. On the other hand, as a rule, when the patient presents himself, because of hemorrhage, we may expect to find a relatively far advanced condition with which to deal.

Having briefly outlined some of the more important causes of rectal bleeding, I would like to discuss the question of how best to deal with this condition. Once we are fairly sure of the cause, we are then confronted with the question of proper procedure. It is obvious that each condition above referred to cannot be given detailed consideration insofar as treatment is concerned. Therefore, we are omitting the more common causes; for instance, hemorrhoids, fissures, fistulae, ulcerative colitis, ulcers of the stomach, blood dyscrasias, and the case of palliative diverticulitis; but we should like to discuss, somewhat in a general way, some of the accepted procedures regarding definite neoplasms of the colon. A fundamental knowledge of the anatomy and physiology of the colon is essential in order to comprehend the physical characteristics of its malignant lesions. Acquaintance with the anatomical structure and its accompanying blood supply is *necessary* for successful surgical removal of these lesions and for proper reconstruction of the bowel. The small intestine and the right colon are derived from the midgut and have assumed their normal position by proper and timely rotation. The lymphatic drainage of the right colon extends from the terminal ileum to a point well beyond the hepatic flexure, converging at a point near the superior mesenteric artery. *Therefore, removal of the right colon in part,* for any malignancy, *would be inadequate,* because, not all of the gland bearing tissue *can be thus removed.* The blood supply of this part of the colon, as well as the small intestine, is from the superior mesenteric artery. The left half of the transverse colon and the descending colon are derived from the hind gut and get their blood supply from the inferior mesenteric artery. *Recognition of this vascular distribution is essential to proper colonic surgery. There must be no question of ample blood supply at the point of anastomosis when attempting to reconstruct the normal channel of the bowel.*

The right colon differs anatomically from the left. The cecum has a very thin muscular wall, capable of extreme distention. As this part of the bowel progresses distally, its muscular coat gradually becomes more pronounced until the left side is reached. The right side of the colon is larger than the left and its lumen is greater. The fluid content is semi-liquid and the bowel has a physiologic retention of fluid absorption. The left side of the colon is more of a tubular structure for the storage of debris. It has comparatively very strong longitudinal muscles, adapted for forceful peristalsis and expulsion of its contents. Lesions of these two sections of the bowel would have to be quite definite, because of the frank difference of the anatomy of the two. For instance, a lesion of the cecum could hardly grow around the bowel, as it usually does on the left, and produce a constriction. Symptoms of cancer of the colon, therefore, vary, depending on the location of the lesion.

With this brief summary of the physiology and anatomy of the colon, I would like to outline some of the essentials of resection and primary anastomoses of lesions of the big bowel:

First, where there is obstruction, *primary anastomosis* is not done. In this case it is always better to do a two-stage operation of whatever type you prefer or are more familiar with.

Second, the patient must be in condition to withstand a prolonged operation.

Third, the proximal bowel must be clear, or as nearly so as possible, with no fecal matter present. In other words, proper preliminary preparation of the patient is entirely essential.

Fourth, the bowel must be viable and its blood supply adequate and respected.

Fifth, there must be no tension on the suture-line.

In summary, an attempt has been made to emphasize the following facts:

The public should be constantly reminded of the fact that cancer has no respect of any person of any age.

Second: We, as physicians, must accept our part of the responsibility for the high death rate of cancer of the colon as it obtains over the country today.

Third: Rectal digital examination is not time-consuming and may produce a large percentage of invaluable information.

Fourth: Gratitude and respect for the assistance of the roentgenologist is to be acknowledged, but not to the extent of assuming the habit of depending upon him entirely for a final diagnosis of intestinal lesions.

Finally, we must remember that in doing these resections and anastomoses, unless the best possible technique is executed, all the present known antibiotics in the world may not save the patient's life.

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CANCER

Edited by R. W. POSTLETHWAIT, M.D., Charleston, S. C.

CARCINOMA OF THE CERVIX*

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The following comments on carcinoma of the cervix are based on the practices followed in the State Cancer Clinic at the Medical College, and as adapted to the private practice of the senior author. It is felt in dealing with a uniformly fatal disease such as cancer, that both painstaking diagnostic procedures and radical therapeutic measures are to be strongly recommended and that anything less is a waste of effort.

The fact that carcinoma of the cervix is the second most common malignancy occurring in woman is widely known. Less widely recognized is the preponderence of its occurrence in the lower income group. Whether this is related to diet or to cleanliness cannot be said, but there are many less cases in the well fed segment of the population where liberal quantities of soap and water are used. The recent work of Ayer in Toronto suggests that there may be a causative factor in vitamin B-1 deficiency, although this is still largely theoretical.

The great concern to the average practitioner is in diagnosis, even more than in therapy, since most cases are referred elsewhere once the diagnosis is established. Only constant suspicion can pick-up early cases where the prognosis for at least five year cure is good.

Age does not help in the differential diagnosis. The authors have seen proven cancer of the cervix in patients ranging from 18 thru 93 years of age. From the physician's point of view any irritation of the cervix deserves watching. It is realized that innumerable women are seen with a minor irritation of the region around the cervical os or in the region of old cervical tears. Any suggestion of exuberant growth should promptly be biopsied. A small, flat, easily bleeding lesion should theoretically be biopsied; but in practice the large number of them seen by the average practitioner precludes biopsy of every one. They should, however, be observed after douching with either water or a slightly acid douche for four weeks, and if there is not obvious rapid healing, laboratory diagnostic procedures should be resorted to. The authors do not feel that actual cautery should be used before diagnostic laboratory procedures are employed, although there is no reason not to use silver nitrate locally when first seen. It is only by laboratory procedures that early lesions can be found, the stage in which therapy is most likely to result in salvage.

From the patient's point of view the first sign is vaginal spotting between periods either after exertion or after intercourse. It is felt that postcoital bleeding regardless of findings deserves laboratory investigation. The public is slowly being educated in these lines by the various women's magazines, and it has been noted with great pleasure that an increasing number of women realize that any spotty type of bleeding means immediate consultation with the family physician. Where bleeding is more than a spotty type, usually the diagnosis is obvious on the first examination and requires little comment. It is tragic when a patient appears bleeding constantly, having begun with only small spotting perhaps six or eight months before, and finally upon presenting herself is found to have advanced to a Stage 3 malignancy (League of Nations classification).

The pathologic processes, the mechanism of the disease, are rather simple. Although rare types of malignant tumors are on occasion found, the vast majority of the lesions are epidermoid carcinoma or adenocarcinoma arising from the glands of the cervical canal. Probably both types originate at or near the junction of the squamous epithelium of the portio with the glandular epithelium of the canal, and the original lesion when first seen may be very tiny.

While it was once thought that there was a sudden change from the normal cell to the malignant, metastasizing cell, it is now felt that there is probably a long stage of gradual change. We now receive pathologic diagnosis of "intraepithelial" carcinoma or "carcinoma in situ." By this the pathologist means that

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the tissue shows both an abnormal number of mitotic figures and an abnormal configuration of the cellular components, the basement membrane being still intact, however. There is one case on record in which a diagnosis of "intraepithelial" malignancy of the cervix was made seven years prior to the development of an infiltrative lesion, the patient having refused therapy at the first instance. How long the preinvasive stage may last is not known. However in another series of so-called intraepithelial tumors, removal of the cervix resulted in the diagnosis of truly invasive carcinoma in almost all the cases, doubt being shed on whether or not the diagnosis of "preinvasive" malignancy should ever be made. Probably the matter will not be settled for many years, but in the present state of knowledge it is felt that such a diagnosis is in all probability justified.

The clinico-pathological classification by the League of Nations is used in the Medical College clinic and is as follows:

Stage I—The carcinoma is strictly confined to the cervix.

Stage II—The carcinoma infiltrates the parametrium on one or both sides but has not reached the pelvic wall;

or the carcinoma infiltrates the upper two-thirds of the vagina;

or an endocervical carcinoma has spread into the corpus.

Stage III—The carcinoma has infiltrated to the pelvic wall on one or both sides;

or the carconoma involves the lower third of the vagina;

or isolated metastases are palpable on the pelvic wall irrespective of the extent of the primary cervical growth.

Stage IV—The carcinoma has extended to the bladder, to the rectum, or outside the true pelvis.

The presence of more than one of the above criteria in a given case does not alter the staging. Note also that the "Stage" has no relation to the pathologic grading of Broders' in which an attempt is made to classify apparent cellular activity. This has not in our hands had any clinical significance, whereas, the staging has proven extremely valuable for the purposes of comparison and prognosis.

The subject of laboratory diagnosis is second in importance only to the suspicion and intuition that requires the physician to make use of its aid. One cannot biopsy every patient with a slight irritation of the cervix, but certainly its use should be more widely employed than it is by the average physician. It is not felt that hospitalization with its attendent fees is justified when a biopsy can be done as an office procedure with a simple cervical biopsy instrument whose cost is less than ten dollars. Bleeding following such a biopsy is usually very easily controlled by a rosebud tampon or a commercial vaginal tampon soaked with a little Scott's solution or Mercresin, i.e., any solution containing roughly 10% acetone. It is strongly felt that the biopsy is too often neglected in the desire to save the patient the money required for hospitalization, often making one remiss in obtaining the necessary study.

The second diagnostic procedure of laboratory type widely employed in office practice is the Papanicolaou smear. Certainly it does not preclude a biopsy; false negatives are obtained in 3 to 5% of cervical malignancies and in 20% of endometrial malignancies. But by its very nature the smear sometimes is much more efficient, since it is a sampling of all exfoliated cervical and endometrial cells rather than the sampling of a localized area such as is the biopsy. Rather than being rivals, they are companion procedures, each a little better than the other in some circumstances.

It is not felt that the report of a positive smear justifies therapy per se. It should be confirmed by biopsy of the cervix or currettage of the endometrium, following which appropriate therapy is instituted for the type and stage of malignant tumor proven to be present. Should the tissue sections prove negative and the smears remain consistently positive, the case must be judged on its individual merits; the authors would probably recommend hysterectomy even though in one such case no tumor could be found in the surgical specimen.

The technique employed is to insert a speculum with almost no lubricant. A bulb syringe with a long glass adapter is used to suck out the cervical canal, the material from which is spread on a slide and immediately immersed in a solution of 50% ether, 50% 95%-alcohol. A second slide is obtained by scraping the cervical os in a rotary fashion either with a tongue blade or an Ayer spatula. The two slides remain in the solution for twenty-four hours, are removed, and, without drying the excess of the solution, shaken off. On each slide a moderate amount of glycerin is poured and the two slides placed face to face. They are then wrapped either in a prescription blank or in wax paper forming a very small package which is then mailed or carried to the laboratory.

As in all medical procedures, but particularly with the Papanicolaou technique, the test is no better than the man who interprets it, and all smears are read by one individual, so that results, if not 100% correct, certainly are consistent and allow the clinician a closer judgment. Errors are made as in all procedures but the percentage has been very small and has largely been in those cases where considerable blood has been present. This difficulty has been to a considerable degree obviated by using the new oxycellulose technique which consists of sponging the cervix that is prone to bleed excessively with a small fragment of Oxycel or Gelfoam, the sponge being immediately fixed in formalin and sent to the laboratory as is an ordinary

biopsy. Here it is imbedded and sectioned. It is found that the absorbent properties of the sponge spread out the exfoliated malignant cells and make the reading by the pathologist much more easy. For a non-bleeding cervix, however, the scraping technique is preferable.

Therapy depends both on laboratory and on clinical findings, more on the latter than the former. Where obvious proven carcinoma is present as proven by biopsy, both surgery and radiation are employed. The criteria for surgical interference cannot be clearly stated as our ideas are still in the process of formation. In a relatively young patient with a Stage I lesion, in whom there is neither obesity nor systemic disease which would preclude surgery, removal of the uterus, tubes, ovaries, the upper third of the vagina, the parametrial tissue, the internal iliac nodes, and the obdurator nodes is resorted to, following roughly the technique of Victor Bonney. This is followed by standard x-ray irradiation through four ports. Where the extent of the disease is more than Stage I, or where the patient does not seem a good surgical risk, radiation only is employed. Roughly 8,000 r units are administered through two anterior and two posterior ports, 100 KV, 70 CM, as well as one to two thousand r units by vaginal cone. This is followed roughly six weeks later by 6,000 to 7,000 mg. hours of radium, about 2,800 mg. hours with a Swanberg T-tube loading the vertical arm with radium and using the cross arm as a spacer, with filtration of 1 mm. platinum equivalent; and roughly 4,200 mg. hours in the vaults by means of London spheres using 1.4 mm. platinum equivalent filtration. It is realized that this is rather massive therapy and we have had a larger number of radiation proctitides than we like. Again our ideas of therapy are still in a state of mild flux.

In an occasional case even though it is not strictly Stage I, if the outlook is hopeless with radiation, surgery is resorted to. These cases, however, have not been particularly successful. We have not yet tried the radical dissections of Brunschwig for carcinoma of the cervix but have for other sites. Conversely an occasional patient is first seen with carcinoma advanced to such a degree that it is felt that therapy would be worse than no treatment at all, and these cases are referred back for terminal care.

Where the pathologic report is intraepithelial carcinoma, simple hysterectomy is done without gland dissection. Depending on the age of the patient, the ovaries may or may not be excised. Should the pathologists' opinion of the surgical specimen be at variance with his biopsy diagnosis, i. e., should he find invasive areas in the larger mass of tissue, hysterectomy is followed by standard abdominal x-ray therapy.

In the case of adeno-carcinoma, the problem is different due to the refractivity of this histologic type to radiation. Where such a diagnosis is made, except in obviously inoperable cases, radical surgery is resorted to with the same lymph node resection previously mentioned. Empirically surgery is followed by abdominal x-ray radiation in spite of the generic refractivity.

We have been pleasantly surprised in a few cases to find the extent of the lesion less than had been expected; likewise in a small number the converse has been true. But until a better method is found, we shall continue to give the patient the benefit of any doubt when dealing with a uniformly fatal disease.

The tragedy of carcinoma occurring in the cervical stump is being reported in a subsequent paper; suffice it to say that the authors do not believe subtotal hysterectomy justified except under unusual circumstances or where prolongation of the operation would add excessive risk to the patient. This is rare.

Cervical malignancy complicating myomata of the fundus or pregnancy is unusual but deserves mention. In the presence of myomata the risk of radiation necrosis of large or pedunculated tumors is fairly great, and, where possible, radical surgery is employed. One is not justified in supracervical amputation to be followed by radiation; cutting across tissue planes enhances local spread.

Where there is concomitant pregnancy, our general policy is to treat the disease appropriately and ignore the pregnancy. Hysterotomy is not done if the pregnancy is four months or less and the tumor non-surgical. The foetus, in our limited experience, dies and is passed spontaneously without difficulty. The many facets always present in any obstetric problem, however, individualize each case.

IN MEMORIUM

(The report of the Memorial Committee, Dr. W. E. Simpson, Chairman, presented at the annual meeting of the South Carolina Medical Association, May 1950.)

The Master said: "Verily, Verily I say unto you—except a corn of wheat fall into the ground and die it abideth alone; but if it die it bringeth forth much fruit." "He that loveth his life shall lose it, and he that hateth his life in this world shall keep it unto life Eternal. If any man serve me, let him follow me and where I am there also shall my servant be. If any man serve me him will my Father honor."

We rejoice that the official ranks of our Association have not been broken during the past year. However, our hearts are saddened by the parting from us of 26 of our members. While our hearts are heavy because of their absence from us, we rejoice in the hope which they shared with us of immortality. We pray that the God of all comfort be with and sustain their loved ones in these dark hours. May they know the peace that comes from the consciousness that, "The Eternal God is thy refuge and underneath thee are the Everlasting Arms." Christ who conquered the last fortress on the frontier of life—even death itself made us this promise, "I am the resurrection and the life. He that believeth on me, though he were dead, yet shall he live; and whosoever liveth and believeth in Me shall never die—Because I live, ye shall live also.

Now may we stand in bowed reverence while we call the roll of our beloved colleagues who have answered the summons of the Great Physician, and have resumed their labors with Him in the Eternal City of God.

Respectfully submitted,

W. E. Simpson

W. L. Pressly

George Bunch

Committee

DOCTORS' NAME	ADDRESS	DATE OF DEATH
W. L. Bates	Greenville	August 11, 1949
W. W. Boyd	Spartanburg	August 12, 1949
O. L. Bruorton	Georgetown	March 22, 1950
C. T. Bullock	Mullins	February 24, 1950
G. H. Bunch	Columbia	March 6, 1950
R. L. Cockfield	Lake City	July 7, 1949
J. T. Darwin	Gaffney	December 29, 1949
I. D. Durham	Columbia	May 30, 1949
R. B. Gantt	Charleston	February 24, 1950
J. G. Goings	Union	April 26, 1950
G. B. Harley	Dorchester	July 28, 1949
C. D. Jacobs	Kingstree	February 26, 1950
Fletcher Jordan	Greenville	April 18, 1950
W. C. Marett	Seneca	September 28, 1949
Hillyer Rudisill	Charleston	July 27, 1949
J. O. Sanders	Anderson	September 22, 1949
S. G. Sarratt	Union	November 22, 1949
J. B. Setzler	Spartanburg	November 9, 1949
L. C. Shecut	Orangeburg	March 9, 1950
H. M. Smith	Columbia	October 11, 1949
T. H. Smith	Bennettsville	April 20, 1950
M. W. Webb	Wagener	February 20, 1950
L. D. Wells	Holly Hill	May 18, 1949
R. H. Wilds	Aiken	November 1, 1949
H. A. Willis	Moncks Corner	July 20, 1949
W. H. Woods	Myrtle Beach	March 31, 1950

TEN POINT PROGRAM
OF THE
SOUTH CAROLINA MEDICAL ASSOCIATION

1. Cooperation

To promote closer cooperation and better understanding between all agencies, groups and individuals concerned with providing and improving medical care for the people of South Carolina.

2. Extension of Medical Care

To study constantly the need and availability of medical care in each county of the State and in the State at large.

To promote plans for providing or improving medical care where is a need, particularly in the rural areas.

3. Pre-Paid Hospital and Medical Care

To make voluntary pre-paid hospital and sickness insurance available to all the people of the State (through Blue Cross, Blue Shield, and commercial insurance policies), and to promote the widespread purchase of such insurance.

4. Care of Indigent

To work with local county and state agencies, and with philanthropic organizations, toward securing good medical care for the indigent.

5. Public Health

To support the South Carolina State Board of Health in its broad program of preventing diseases and of safeguarding the health of our people.

6. Health Councils

To support the State Health Council in its announced program. To sponsor the formation of a County Health Council in every county of the state, and to encourage our members to support and to work with these organizations.

7. Hospitals

To promote the expansion of present hospital facilities and the building of new hospitals—where there is a definite need.

To strive for highest standards of professional care in the hospitals in the State.

8. Medical Colleges

To support the Medical College of the State of South Carolina and to bend our efforts toward keeping its standards of education on a par with other medical colleges throughout the country.

To promote good nursing education and good nursing care throughout the State.

9. Education of the Public

To acquaint the citizens of the State with regard to the problems of medical care in existence today, to inform them as to what is being done to solve these problems, and to advise with them as to further plans for securing better health and better medical care for the people of South Carolina.

10. Political Medicine

To prevent political control or domination of medical practice or of medical education.

The Journal of the South Carolina Medical Association

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Please send in promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent. Original manuscripts, subject to approval by the Editor and the Editorial Board, are desired for publication in the Journal. They should be typewritten, double spaced, on 8½ x 11 paper. References should be complete, and only such as relate directly to statements quoted in the paper. Illustrations will be used as funds permit, or as authors are willing to bear the necessary increase in cost. Short original articles are preferred to long reviews.

Office of Publication: (In care of the Editor) ---------- Florence, S. C.
Subscription Price ---------- $3.00 per Year

NOVEMBER, 1950

TONSILLECTOMY AND POLIOMYELITIS

During recent years much has been written and said with regard to the performance of routine tonsillectomies during the summer months when poliomyelitis is most prevalent. The belief has arisen that a child who contracts poliomyelitis is more apt to develop the bulbar type of disease if he has had a recent tonsillectomy. Is there any valid proof for such a contention?

It is the belief of pediatricians in general that there is and it is because of their preachings that the public is beginning to fight shy of any operations on the throat in children during the hot months of the year. The otolaryngologists on the other hand, are unable to find any connection between the removal of tonsils and bulbar poliomyelitis, and a recent study by Dr. Daniel S. Cunning of New York (Laryngoscope, 60: 615-626, July 1950) seems to bear out their contention. In his conclusion, Dr. Cunning states that, "having completed this four-year study of 36,673 cases of poliomyelitis as well as 93,379 cases of tonsillectomies, we fail to see any causal relationship existing between poliomyelitis and tonsillectomy nor, up to and including the present time, have we read any published reports from other sources that offered any conclusive proof that tonsillectomy does predispose to bulbar poliomyelitis. As we have said in previous years, we see no reason why tonsillectomy should be indefinitely postponed simply because the summer months are the months wherein poliomyelitis is prevalent; however, we do not advise any elective surgery being done during any epidemic, regardless of its nature."

The argument will probably continue until more is known about poliomyelitis as to its method of transmission and as to its pathological course in the body. Until such a time comes the conservative course of action would appear to be that of refraining from doing tonsillectomies during the hot months if there are cases of poliomyelitis in the community, but not to adopt any hard and fast rule outlawing the operation entirely simply because it is a certain month of the year.

POPULAR ACCLAIM AND DRUGS

For some weeks we had been thinking of an editorial concerning the effect which public acclaim has had upon the use of particular drugs. How easy it is to recall the enthusiasm which greeted the announcement, through the popular press, of the first synthetic vitamins, of the sulfonamides of penicillin, of the antihistamines, and now of ACTH. Each in turn was hailed as a wonder drug and was greeted by those without scientific knowledge as the miracle drug which would heal all ills.

Even as we were attempting to put our thoughts on paper, a letter arrived from Dr. Joe Waring of Charleston enclosing an extract from an article, The Press and the Patient, by Dr. Russell S. Boles of Philadelphia (J.A.M.A., Sept 30, 1950). Dr. Boles has expressed our thoughts so well that we take the liberty of passing his words on to our readers.

"Extravagant and undiscriminating publicity of proved valuable remedies gives one something to think about. According to the United States Department of Commerce figures, for instance, the domestic production of penicillin increased from 21,192 billions of units in 1943 to 133,229,493 billions in 1949. The domestic production of streptomycin increased from 1,174,582 Gm. in 1946 to 83,699,137 Gm. in 1949. The phenomenal increase in the use of these drugs is out of all proportion to the known indications for their use. This can be attributed to the fact that the public has had its curiosity so unduly aroused that it expects these drugs to be prescribed for conditions in which they can serve no useful purpose. The use of penicillin, it appears, has become almost routine for any manner of illness or injury. It would run a natural course punctuated by relapses and remissions. Because of these disease characteristics, certain drugs have been exploited as having value when, as a matter of fact, they are enjoying the credit for a spontaneous cure or for a remission with which they had nothing whatever to do. Witness the hysterical use of the antihistamine drugs for the common cold. The height of absurdity was reached when the name of one of these widely ad-

vertised drugs appeared in a newspaper advertisement of a mercantile store stating that the drug had been made available to the employees of the store and it was hoped as a result that their health and the safety of the customers might thereby be better assured. The tremendous publicity being given pituitary adrenocorticotropic hormone (ACTH) in the treatment of arthritis has its unfortunate aspects. Here is a drug that has been shown to be of inestimable value in the treatment of arthritis. It still is unavailable to the multitude of arthritics who have been told what it can do for them. The creation of a demand for a remedy for such an unfortunate illness before the remedy can be commercially available is not to be condoned. Among other harmful consequences, demands of such character create black markets with all their attendant evils and in general conspire in causing tremendous disappointment and suffering to many with pain-wracked bodies."

REPORT OF SOUTH CAROLINA ARMED SERVICES COMMITTEE

As will be recalled, the House of Delegates of the South Carolina Medical Association set up an Armed Services Committee. A representative from each judicial circuit was placed on this Committee. Dr. Lawrence Thaxton of Orangeburg, S. C. and Dr. Carl West of Camden, S. C. were selected by the members of the Committee to serve on an executive Committee with the Chairman who had been selected by the House of Delegates. Subsequent to this Dr. Howard Rusk, Chairman of the National Advisory Committee to Selective Service appointed an Advisory Committee for South Carolina with Dr. Frank C. Owens as Chairman, Dr. Neil Macaulay and Dr. Ben Wyman. The Chairman was authorized to appoint any other necessary Committee. Pursuant to that authority the same Committee from the Medical Association of South Carolina was asked to serve under the new National set up by the Chairman. A Committee of Dentists was appointed and a Committee of Veternarians.

The purpose of this Committee as outlined by Dr. Rusk is as follows: "1. TO ESTABLISH AND MAINTAIN LIAISON WITH YOUR STATE DIRECTOR OF SELECTIVE SERVICE. 2. TO ADVISE THE SELECTIVE SERVICE SYSTEM CONCERNING THE CLASSIFICATION OF INDIVIDUAL MEMBERS OF THESE HEALTH PROFESSIONS WHO ARE SUBJECT TO CLASSIFICATION BY SELECTIVE SERVICE BOARDS. 3. TO BE RESPONSIBLE FOR CARRYING OUT WITHIN THE STATE POLICIES ESTABLISHED BY THE NATIONAL ADVISORY COMMITTEE."

A questionairre has been sent out to all the Doctors in the state and it is hoped that all will return these questionairres as they will be used as a basis in the formation of an opinion as to whether a man is essential to a community or not.

Registration by all ASTP and V-12 men who served less than 21 months was begun on October 16. Registration headquarters are the various local boards. The men are given questionairres and allowed five days in which to return them to their local boards. They will then be studied and classified. As soon as this information is available to the Committee a meeting of the State Committee will be held to pass the essentialibility of those who registered.

Your Committee is anxious to know when every Doctor from South Carolina enters service. The secretary of the various societies are requested to notify us whenever this occurs. This information is important in that such volunteers may be counted against the South Carolina quota. At this writing no quota has been set for South Carolina. However, the attention of Washington authorities has been called to the fact that the present patient load per Doctor in South Carolina is the greatest in the Nation, that is, less than 1% (about three-quarters per cent) of the Doctors of the U. S. are located in South Carolina.

Frank C. Owens, M. D.
Chairman

S. C. A. G. P.

The Second Annual Scientific Assembly of the South Carolina Academy of General Practice was held in Columbia Friday, October 13th. It was a most successful meeting, both educational and enjoyable. Approximately 100 doctors and a number of wives from all areas of the state attended.

At the business meeting, conducted by Dr. R. L. Crawford of Lancaster, the president, there was considerable discussion about the post-graduate courses for general practitioners to be presented at the Medical College of the State of South Carolina next year. A publication committee with Dr. W. L. Pressly as chairman was selected. This committee will soon publish a news letter or bulletin to be sent out to every general practitioner in the state. Dr. T. G. Goldsmith of Greenville was elected president-elect. Dr. C. N. Wyatt of Greenville and Dr. W. W. King of Batesburg will be the delegates to the Annual Scientific Assembly of the American Academy of General Practice to be held in San Francisco in March 1951. Dr. W. L. "Buck" Pressly of Due West and Dr. Keith Sanders of Kingstree will be the alternates.

Dr. Ben F. Wyman of the State Board of Health gave a most instructive talk about how the various facilities of the Board of Health are available to the physicians of this state and how the physicians can better cooperate with the State Board of Health.

At the luncheon Dr. Kenneth M. Lynch, President of the Medical College of the State of South Carolina, was the speaker. He spoke very encouragingly of the

future plans of the Medical College to assist in Post-Graduate education of the doctors of this state. He brought out the point that the Founders Day program presented at the Medical College in Charleston on November 2nd is jointly sponsored by the Alumni Association and the South Carolina Academy of General Practice.

The afternoon was devoted to a Symposium on Obstetrics. The three speakers and their subjects were:

Dr. R. A. Bartholomew, Professor of Clinical Obstetrics, Emory University.

THE INCIDENCE AND EFFECTS OF VASCULAR DISEASES IN PREGNANCY AND THE PUERPERIUM.

Dr. Frank R. Lock, Professor of Obstetrics and Gynecology, Bowman Gray School of Medicine.

THE DIAGNOSIS AND MANAGEMENT OF POST PARTUM HEMORRHAGE.

Dr. Bayard Carter, Professor of Obstetrics and Gynecology, Duke University.

OBSTETRIC DEATHS.

The round table discussion at the close of these excellent presentations was conducted most ably and entertainingly by Dr. J. Decherd Guess of Greenville.

At a well attended luncheon for the Ladies, Mrs. Kirby D. Shealy of Columbia, the President-elect of the Woman's Auxiliary of the South Carolina Medical Association, was the speaker. The luncheon was followed by a matinee.

At 7 P. M. was the cocktail hour followed by the Second Annual Banquet of the South Carolina Academy of General Practice. Dr. R. L. Crawford, President of the South Carolina Academy of General Practice, was Toastmaster. Dr. Frank C. Owens introduced the numerous distinguished guests.

The grand speaker of the whole occasion was the banquet speaker, Dr. Robert B. Robins of Camden, Arkansas. Dr. Robins is a very well known national figure and much sought after as a speaker in medical circles. He is Vice-President of the American Medical Association, Speaker of Congress of Delegates of the American Academy of General Practice and is chairman of the Democratic Party of the State of Arkansas.

We all hope our next annual meeting will be as successful from all angles as this one was.

THE TEN POINT PROGRAM

M. L. MEADORS, DIRECTOR OF PUBLIC RELATIONS AND COUNSEL

DRAFT MACHINERY IN OPERATION

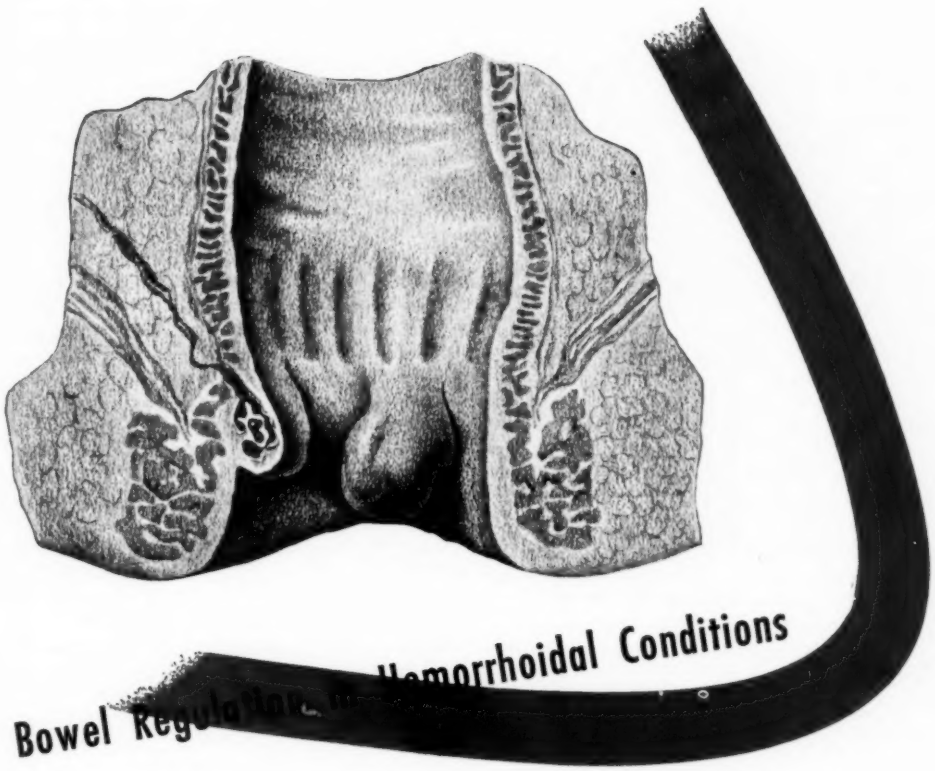
The Doctor Draft Law (P.L. 779) was put into effect by Presidential Proclamation on October 6th. The first registration date was set for Monday, October 16th. Those who were required to register on that day included all physicians, dentists and veterinarians under fifty years of age and not members of military reserves," . . . who participated as students in the Army Specialized Training Program or any similar program administered by the Navy, or (those) who were deferred from service during World War II for the purpose of pursuing a course of instruction leading to education in a medical, dental or allied specialist category, and (who have) had less than 21 months of active duty in the Army, Air Force, Navy, Marine Corps, Coast Guard or Public Health Service . . . exclusive of time spent in post-graduate training."

The time between issuance of the Proclamation and the registration date was short. Immediately upon receipt of the information at the Florence office, a mimeograph letter was mailed to every member of the Association, calling attention to the date and the qualifications of those who were required to register.

All others covered by the Draft Law will be required to register sometime before January 16, 1951, the date or dates to be set by Selective Service. Included in this group will be all physicians, dentists and veterinarians, with these exceptions: (a) those over 50 years of age, and (b) those in the military reserves. Previous active duty will not exempt a man in this group from registration. Selective Service may order registration of all men in this group on the same date, or call for separate registrations based on extent of active duty, with those who served the least time registering first.

Concurrent with the fixing of the first registration date, the National Advisory Committee provided under the Doctor Draft Law was appointed. Dr. Howard Rusk of New York was named as Chairman and other physicians included were Dr. James C. Sargent, Chairman of the A.M.A's Council on National Emergency Medical Service, and Dr. Howard S. Diehl, likewise a member of the Council. This complied with the provision of the Law that the medical profession should be represented on the committee. The committee will advise National Selective Service on broad policy regarding drafting of doctors and will coordinate the work of state and local volunteer committees which are expected to do most of the actual selecting.

Following shortly after the appointment of this National Advisory Committee, Dr. Frank C. Owens, Columbia, Chairman of the South Carolina Medical Association's Committee on Military Service, was notified by Dr. Rusk of his appointment as Chairman of the South Carolina Advisory Committee. Dr. Owens was authorized to appoint and report for confirmation by the National Committee, such additional members as should be necessary to carry out the functions of



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the State Committee. Dr. Owens, it is understood, has appointed in this capacity, the other members of the 17-man Committee on Military Service.

The responsibilities of state committee members according to Dr. Rusk, are to:

1. Establish and maintain liaison with state Director of Selective Service.

2. Advise Selective Service System concerning classification of individual members of health professions who are subject to classification by Selective Service boards.

3. Be responsible for carrying out within the state policies established by the National Advisory Committee.

With the foregoing developments, the machinery provided for under P.L. 779 apparently has begun to roll. At this point it appears that the preparatory work and the appointments made under the Law have been good and that the general attitude and atmosphere surrounding the plans for its administration are favorable to a successful, equitable and judicious implementation.

Reports with reference to one or two instances of conferences by Dr. Owens and members of his committee with the military authorities in the state have likewise been very favorable with respect to the cooperative, understanding attitude on the part of those authorities.

MANY STATES FORM GRIEVANCE COMMITTEES

The American Medical Association recently announced that 34 of its 48 constituent state medical associations and the District of Columbia Medical Society now have committees which will hear complaints from the public.

Purpose of these committees according to Dr. George F. Lull, Chicago, Secretary and General Manager of the A.M.A., is to "iron out any misunderstandings between the public and the profession." He said that the committees are another expression of the physicians' constant concern for the welfare of their patients.

Under the committee setup, any patient who is dissatisfied with service rendered, who feels he has been overcharged, or who is dissatisfied for any other reason, may take his complaint to the medical society. The Committee on Professional Conduct, as these patient-complaint committees are commonly called, will consider his charges, discuss them with the physician concerned, and recommend a solution.

"Experience has shown that most complaints arise out of misunderstandings that are quickly and amicably settled," Dr. Lull said, adding: "In cases involving fees, many difficulties occur solely because the physician and the patient neglect to discuss charges. Patients often don't realize that many tests and treatments are included under the simple heading 'For Professional Services Rendered.' After a committee-arranged conference between doctor and patient, these troubles usually evaporate.

"Even in the cases where a committee finds that the doctor has erred, little difficulty is experienced in settling complaints. Committee after committee has reported to the A.M.A. that they have never had a doctor refuse to accept their recommendations."

If more stringent discipline should be required, however, the medical society has the power to expel the physician involved from membership, or, if charges warrant, can even go so far as to request revocation of his license by the state licensing board.

A majority of the state Committees on Professional Conduct have been established as the direct result of a resolution voted by the A.M.A. House of Delegates last December. This resolution read, in part, "this House of Delegates hereby commends those constituent state associations that have already established committees to hear any complaints of the public and urges that all constituent associations adopt comparable programs."

The following states and the District of Columbia now have special committees set up to hear complaints from the public: Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Illinois, Iowa, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Nebraska, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Rhode Island, Tennessee, Utah, Vermont, Virginia. West Virginia, Wisconsin and Wyoming.

In five states, public grievances are handled by the governing council of the state medical association. These states are Georgia, Kansas. Louisiana, Minnesota and Nevada.

Most of the other state associations are considering the formation of a Professional Conduct committee.

In addition, many county societies have, or are establishing, local committees to hear grievances. The results of a survey of county committees which is now in progress will be announced later.

REGULATIONS GOVERNING DOCTOR DRAFT

In an Executive Order by the President dated October 12th, regulations for the operation of the Doctor Draft Law (P.L. 779) were given. Elsewhere in this column is an account of the provisions for registration of certain categories on Monday, October 16th. At the expense of repetition to that extent, the following is a synopsis of the regulations covering the whole of the operation of the Law as presently proposed:

PRIORITIES. On October 16th, physicians in the first and second draft law priorities were required to register. *First priority*: Former ASTP or V-12 students or others deferred during World War II to continue

their education and who subsequently served less than 90 days. *Second priority*: Men similarly deferred, but who served more than 90 days and less than 21 months. Although both priorities registered the same day, Selective Service has decided to process the first priority first. Registration dates for all other physicians not yet 50 years old and not in military reserves will be scheduled for some time prior to January 16, 1951.

INDUCTION DATES. Prospects are that inductions in large numbers will not begin until late in December. Target date for completion of processing, except for physical examinations, is December 1st. Physical examinations of first priority men need not be completed until December 15, with second priority to follow. Orders to report for induction—in most cases coming after December 1st—still allow the registrant 21 days to settle his personal affairs.

ORDER OF INDUCTION. State and local quotas will not be established on the basis of total registration as in the general draft, but on the basis of the number of registrants in the various categories. This is to insure that the men the law was designed to procure—government-educated and others with little or no service—will be called up first. Within any category, the *youngest* will be called first. When other World War II veterans are required to register, they will be broken down into sub-categories, based on amount of service measured by full months. If it is necessary to reach into these groups, the age factor again will be applied in determining order of induction.

VOLUNTEERS. The Army is undertaking to offer a reserve commission to every registrant at the time he takes his physical examination and before his induction. However, physicians can volunteer for any military service up to the time he is inducted. When informed a man has received a reserve commission, or gone on active duty, Selective Service will place his name in a special classification and will not consider him draft-eligible. Under the law, men involuntarily inducted may not receive the $100 monthly pay bonus which goes to volunteers.

PHYSICAL EXAMINATIONS. State Selective Service directors are arranging with Army area commanders to conduct special physical examinations for physician, dentist and veterinarian registrants. These will begin some time prior to November 15th. As noted above, at this time the Army will offer commissions, and a lenient policy will govern the granting of waivers by the Army for physical defects which would not interfere with the performance of a medical officer's duties. Neither Army nor Selective Service officials would state what action would be taken with a registrant who persisted in declining a commission under these circumstances. However, under the law he could be inducted and made to serve in the ranks.

DEFERMENTS. Volunteer Advisory committees to local Selective Service Boards will generally make these decisions, but boards have final authority and need not accept verdicts of committees. The Presidential Order says registrants shall be deferred as hardship cases "only if it is determined that (their) induction into the armed forces would result in extreme hardship and privation to a wife, child, or parent with whom he maintains a bona fide family relationship in their home . . ." The order says deferment because of essential service to community shall be granted only "when his induction would cause the availability of essential health services to fall below reasonable minimum standards" in his community.

CLASSIFICATIONS. Non-deferred physicians will be classified as 1-A. Grouped with 1-A for purposes of induction will be conscientious objectors to combatant service, with the classification of 1-A-O. Deferred classes follow in this order: 4-E, conscientious objectors to combatant or non-combatant service with armed forces. 1-D, registrants who are or become members of military reserves following registration. 2-A, those whose service to their community has been found to be essential. 3-A, those whose induction would cause undue hardship to family. 4-A, sole surviving son of a family, some of whose other sons have died in military service. 4-F, deferments for physical and mental causes or for other reasons not acceptable to military. 5-A, registrants who reach their fifty-first birthday. 1-C, men on active military duty or who subsequent to registration complete the required period of military duty.

IMPORTANT DATES IN DRAFT. Following schedule represents order in which Selective Service hopes to operate induction machinery—OCT. 18; state directors report to National headquarters total numbers of physicians, dentists and veterinarians registered. OCT. 23; local boards begin classification, with emphasis on first priority, whose classification is to be completed not later than November 15th. OCT. 31; reports to be filed on total registration, with breakdown on numbers found to be available and non-deferred. NOV. 15; special physical examinations start not later than this date, examinations for first priority to be completed before December 15th. DEC. 1; local boards to mail in "Reports of Availability and Summary of Classification," containing all pertinent information on registrants except possibly for physical examination data.

SOUTHEASTERN REGIONAL CONFERENCE

One of a series of regional meetings arranged by Dr. Dwight Murray's Committee on Legislation of the A.M.A. is being held in Atlanta on Thursday, October 26th. The Committee on Legislation is composed of members of the A.M.A. House of Delegates, representing each geographical section of the country. Dr. Julian P. Price is the member for the Southeastern States. The Atlanta meeting will discuss recent developments on the legislative front, and problems anticipated during the next session of Congress. Representatives from the six Southeastern States are expected to attend.

Dr. Joseph S. Lawrence, Director of the Washington Office of the A.M.A., with other members of his staff, is expected to be present and will probably direct the trend of the discussion. Fresh from the center of legislative and political activity, they should have information and suggestions of interest for the group. During the past two years, the staff of the Washington Office has followed the plan of visiting state societies and attending regional meetings during the time when Congress is not in session. It appears to be an excellent development in the activities of the Washington branch of the A.M.A.'s organization, and in the strengthening of its relationship with the component state societies.

LABOR LOOKS AT THE PROBLEM OF PREPAID MEDICAL CARE*

Prepaid medical care is one of the major public policy questions before the American people today. Since it has become an issue of public policy, it has become a political issue—as it properly should. For in our democratic society the right to make political decisions on matters that concern all of us distinguishes our form of government from the kinds of government that exist today in many other parts of the world. There are now ten different bills dealing with health insurance before the Congress. Members from both sides of the aisle have signed these bills--some of which have bipartisan sponsorship. At least one out of every five Senators has signed his name to one or more of these pending health insurance measures.

It is no cause for alarm that prepaid medical care has become a political issue. In resolving this issue application of the democratic process is as fundamental as the decision that is reached. The physicians of America as well as the general public have a common stake in the free and honest application of our democratic process in solving this issue of prepaid medical care.

We are spending billions of dollars to protect our form of government and to demonstrate its meaning to other peoples of the world. It is futile to appropriate enormous sums of money for these purposes if we cannot resolve satisfactorily at home, within the social and political framework of our society, such questions as how to meet the people's need for medical care. Our answer to Communism is Democracy—not just the idea of democracy, but a demonstration of how it works to meet the needs of the people. In this, organized labor and the physicians have a common interest and a common determination.

The demand for prepaid medical care grows out of recognition that the average family cannot pay for costly illness unless an insurance method for spreading the costs is developed. The working man knows that recommended treatment for himself and family often cannot be obtained because he cannot pay for it. Prepayment is the basic approach to removing this economic barrier.

A few decades ago the highest quality of medical care represented a very different standard from that available today in some of our modern medical institutions—as different as the model-T Ford is from the car of today.

Improved medical care standards are a part of the larger movement for higher standards of living. Higher standards are inevitable; they are part of the fight for human progress and a better life for all men. Higher standards of medical care for all people result from more knowledge and improved methods of distribution. The medical advances of the past ten years alone have changed patterns of practice and changed, likewise, our concepts of satisfactory standards of care. But these developments mean higher costs to the consumer.

The physicians of America have agreed that today's higher medical costs can best be met by some form of prepayment. The need for prepayment is not at issue; the issue, rather, is whether prepayment shall be accomplished through a system of public insurance or through a system of voluntary insurance augmented with governmental action.

Millions of dollars have been spent in the past several years by the American Medical Association and groups associated with it in the fight against national health insurance. The effect of this widespread and intensive program has been to promote public awareness of the insurance idea and the advantages of prepayment. The American Medical Association, therefore, deserves not-often-expressed credit for helping to "sell" health insurance to the American people and for making our Congress aware that certain national health problems do exist and that they exist as public issues. This awareness has been further stimulated by the Blue Cross and Blue Shield Plans and the commercial insurance companies in connection with their sales programs.

Organized labor and many physicians agree that the common objective is to bring the highest quality of medical care within reach of all people—that economic barriers to needed medical care must be lifted by a system of prepayment. From that point on, we have an area of controversy which will be resolved by Congress within the next few years.

It is to be expected that organized labor—that International Unions such as UAW-CIO—would have a position on this major issue. Likewise, we should expect the physician's organization—the American Medical Association—to have a point of view on the issue. When the mechanism for financing goods and services

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*(Address of Mr. Harry Becker, Detroit, Michigan, Director, Social Security Department, United Automobile-Aircraft-Agricultural Implement Workers of America, CIO, before the Conference of Presidents in San Francisco on June 25, 1950.)

a critical evaluation

of drugs for treating

urinary tract infections

it has been noted that:

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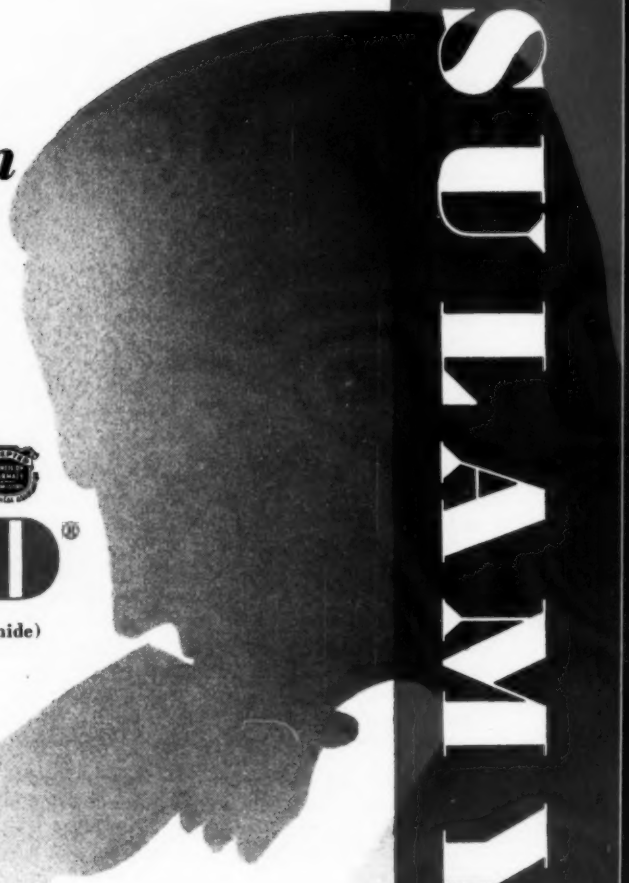
(Sulfacetimide)



"combines the features of good antibacterial activity, low toxicity, and rapid renal elimination resulting in high urinary level. . . . Sulfacetimide . . . has the advantage of high solubility even in the physiological acid range of the urine, thereby minimizing almost to a negligible point the danger of concrement formation. . . ."[1] Because of its wide antibacterial range it may be preferable to penicillin and streptomycin.[2] It is well tolerated and remarkably free from side effects.[3]

DOSAGE: Therapeutic: 2 tablets t.i.d. for 10 days.
Prophylactic: 1 tablet t.i.d.

SULAMYD Tablets 0.5 Gm. in bottles of 100 and 1000 tablets.

1. Nesbit, R. M., and Glickman, S. I.: J. Michigan State M. Soc. *46*:664, 1947.
2. Dodson, A. I.: West Virginia M.J. *45*:1, 1949.
3. Seneca, H.; Henderson, E., and Harvey, M.: J. Urol. *61*:1105, 1949.

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which the people need becomes a public issue, we can expect that the consumers and the providers of services may have somewhat different positions. Since workers are consumers of medical services and physicians are suppliers, it is not surprising that organized labor and the organized medical professions differ on the method of providing prepaid medical care.

Organized labor feels that the demand for health insurance should be met by a comprehensive national health program developed within the framework of our national health and social security policy. Such a national health program would represent a coordinated program for the following purposes: furthering medical research; building programs of preventive medicine; strengthening facilities for training professional personnel; aiding the establishment of hospital and clinic facilities in areas of special need; and establishing methods of prepaying personal medical care to assure adequate financing of the care needed by all members of our society.

Labor's reasons for this position have been stated before. The methods of making medical care available and of paying for it have not kept pace with our technical know-how. There is a gap between the best that medical science and practice has to offer and that which is generally received by the people. We have not fully developed the vast potential for well-being and more healthful lives that is within our grasp. It is the desire to fill the gap between where we are and where we could be in bringing the best in medical care to the people that motivates labor to push for and support a comprehensive national health program.

A problem as complex as health insurance requires a synthesis of ideas from several different fields of thought and experience if we are to understand all of the factors involved. No one of us has within ourselves the resources to do this effectively and easily. Most of us expose ourselves to those journals and other mediums of communication peculiar to our own professions—neglecting the vital cross-fertilization that results from pulling together ideas from several schools of thought.

So it requires bringing together people who can add to our own fund of knowledge their experience and points of view. We will not always agree with these points of view; but only in this way can we have the opportunity to sift the truth from the untruth, the reasonable from the unreasonable and intelligently analyze the problem.

A physician makes an independent analysis before accepting the diagnosis of a colleague. To diagnose the problems of prepaid medical care also requires tests and checks before independent judgment can be formed. Certainly a diagnosis of the economics of prepaid medical care should be checked and rechecked before being accepted. Too often diagnosis of this problem has been accepted without careful and analytical challenge.

In view of this, we urge every physician in America to reanalyze the problem of prepaid medical care in the same objective and scientific manner as he would diagnose a new patient's medical problem.

Let us at this point prepare our prepaid medical care problem patient for surgery. Let us proceed with our surgery with the same care that we would exercise for a patient with an obscure disease that requires exploratory examination and subsequent treatment. If we are true medical scientists we will not be afraid to examine our patient thoroughly nor to take the necessary steps to accomplish the desired course of treatment.

The American Medical Association in its diagnosis says that governmental prepaid medical care is "Socialistic", is inefficient; will lower the quality of medical care; and is too costly. To avoid these effects, the American Medical Association recommends that voluntary and non-governmental agencies be the vehicle for provision of prepaid medical care.

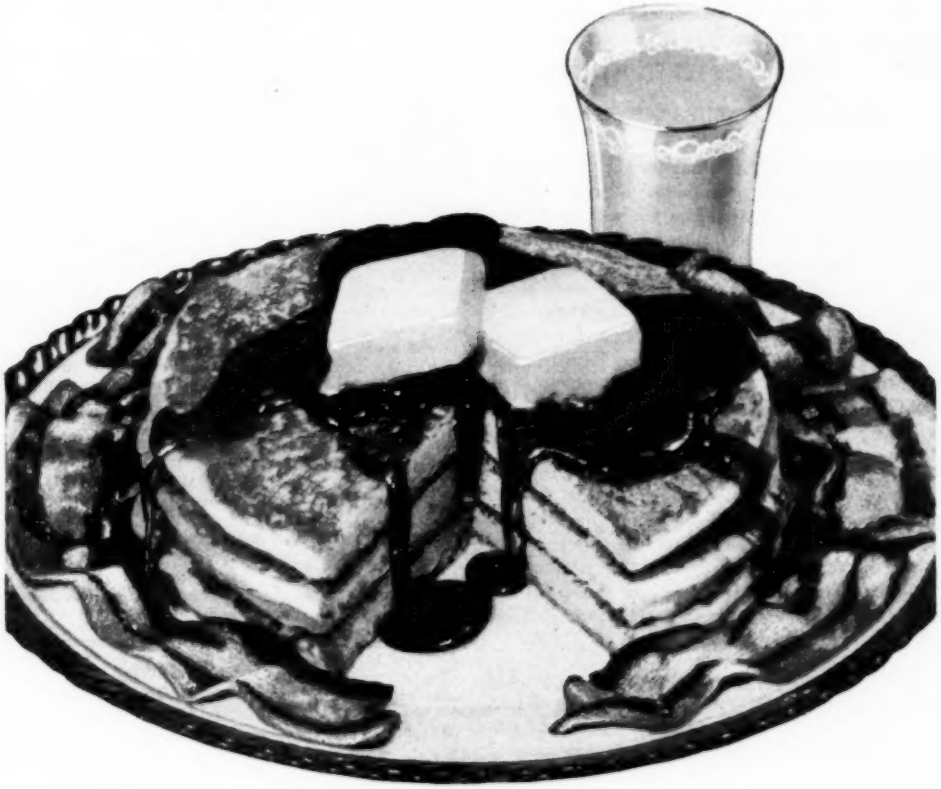
The UAW-CIO and other unions currently negotiating for partial or fully-employer-paid hospital and medical protection for their members and their families are having an opportunity to learn the extent that voluntary agencies are unable to provide prepaid medical care. Through collective bargaining, UAW-CIO has won this year employer contributions toward the cost of prepaid medical care for over half a million families. This number will soon reach a million in our Union; and the total number of workers in America for whom such gains are won in collective bargaining will soon reach five to eight million.

Let us examine labor's nation-wide experience in its efforts to provide under collective bargaining agreements prepaid medical care through existing voluntary agencies.

The choices available to labor today for programs developed under collective bargaining are:

1. To utilize the commercial insurance company plans with their cash indemnity approach.
2. To participate in Blue Shield Plans sponsored by the state medical societies.
3. To establish Union-operated clinics and hospitals.
4. To promote and use such organizations as the Health Insurance Plan of Greater New York, the Group Health Association of Washington, D. C., or to make agreements directly with physicians in group medical practice or with hospitals with salaried physicians.

The American Medical Association Council on Medical Services has not taken a position in support of the medical society-sponsored plans as the preferred agency. The Council gives equal weight to the commercial insurance company and the Blue Shield Plan approach. We do not understand why non-profit prepayment plans sponsored by the state medical societies are not favored by the Council on Medical Services. Neither do we understand why the Council



A Real American Breakfast

That a nutritious breakfast providing generous amounts of high quality protein prevents late morning hypoglycemia has been amply demonstrated. As shown by Thorn and co-workers,[1] and later confirmed by Orent-Keiles,[2] ". . . breakfast high in protein and low in fat and carbohydrate was followed by an improved sense of well-being and no symptoms of hypoglycemia."

Meat for breakfast—ham, sausage, bacon, breakfast steaks—is an appetizing means of increasing the protein content of the morning meal. Its biologically complete protein contains all essential amino acids, and serves well in complementing less complete proteins from other sources. Furthermore, muscle meat is an outstanding source of B complex vitamins and of iron.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

(1) Thorn, G.W.; Quinby, J.T., and Marshall, C., Jr., Ann. Int. Med. 18:913 (June) 1943.
(2) Orent-Keiles, E., and Hallman, L. F., Circular No. 827, United States Department of Agriculture, Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, Dec., 1949.

American Meat Institute
Main Office, Chicago . . . Members Throughout the United States

does not recommend the consumer-sponsored group medical practice type of plan in preference to the insurance company plans.

COMMERCIAL INSURANCE PLANS

The commercial insurance company prepaid medical plans fail to meet the standards for prepaid medical care implied by the American Medical Association in its criticism of national health insurance proposals. The insurance companies at best provide only cash benefits with payments depending on the surgical procedure or other service performed. These cash benefits bear no direct relation to the cost to the worker of his medical care. Nor do they bear a proper relation to the kind of care for which his physician or physicians should be reimbursed. Thus, they meet neither the workers' nor physicians' needs for prepaid medical care.

Insurance companies provide an expensive method of prepaid medical care because of high operating expenses. For group insurance the operating cost is measured by the amount of premium dollar allocated for selling, profit, administration and taxes. On the average this is about 20 cents on each premium dollar. Often it is as much as 40 cents.

Benefits under commercial insurance company plans are inadequate when measured by the degree of protection afforded to the worker and his family. Experience with the cash allowance approach to prepaid medical care indicates that in many instances the existence of the insurance is interpreted by the physician as increasing the worker's ability to pay for care. Therefore, his fee is larger than it might have been had the benefit not been available—and the worker must pay the extra amount.

Another point that should be made with respect to this approach to prepaid medical care is that within this framework there can be no recognition of quality of care nor does it promise flexibility for development of comprehensive services. In fact, the question might be asked whether or not cash allowances for surgical procedures do not sometimes encourage unnecessary surgery.

We cannot recommend to our members the commercial insurance company approach as a satisfactory method of providing prepaid medical care under collective bargaining contracts. Since the insurance company plans do not satisfy the American Medical Association's own criticism on many prepaid medical plans we sometimes wonder if the support by the American Medical Association of this approach does not indicate that approval is being given to the insurance company plans in exchange for their opposition to national health insurance rather than on the merit of their programs. (To be Continued.)

DEATHS

ROGER GAMBLE DOUGHTY

Roger G. Doughty, 55, prominent Columbia Surgeon, died suddenly at his home on October 19.

A native of Augusta, Ga., Dr. Doughty received his academic training at the University of Georgia and his medical training at Johns Hopkins Medical School (Class of 1920).

Following interneships at Johns Hopkins Hospital and the Crile Clinic, he located in Columbia. For the first ten years he was associated with the late Dr. LeGrand Guery and then established an office of his own. Limiting his work to surgery, he soon forged ahead in his specialty until at the time of his death he was recognized as one of the outstanding surgeons in the state.

Dr. Doughty was greatly interested in medical affairs outside of his own office and was a member of various medical and surgical societies. He was particularly interested in the training of nurses and was one of the leaders in formulating a plan of affiliation between the University of South Carolina and Columbia Hospital. He was a loyal member of the Columbia Medical Society and of the South Carolina Medical Association, and in both he was active in their scientific and other activities.

Able, industrious, respected and admired by his colleagues, he was a real tribute to the medical profession, and in his passing the physicians of the state have lost a leader and a loyal friend.

NEWS ITEMS

Dr. J. T. Booker of Walhalla was elected president of the Piedmont Post-graduate Clinical Assembly at the recent meeting in Anderson. Other officers elected were: Dr. T. R. Gaines, Anderson, Executive Vice President; the following vice presidents, Dr. M. L. Boggs, Abbeville; Dr. Edwin Ridgeway, Royston, Ga., and Dr. T. G. Goldsmith, Greenville. Dr. Ned Camp and Dr. Herbert Blake, both of Anderson, were re-elected to their posts of Secretary-Treasurer and Registrar, respectively.

Dr. Robert P. Jeanes of Easley was recently called back into service with the 306th Hospital Unit.

Dr. H. M. Whitworth, Dr. C. Eugene Yeargin and Dr. A. J. Goforth, Jr., all of Greenville, have been called to active military service.

Dr. R. Murdoch Walker of Sumter was elected president of the South Carolina Society of eye, ear and throat doctors at the postgraduate convention held recently in Hendersonville, N. C.; Dr. Paul Barnes of Bennettsville was elected vice president and Dr. Roderick Macdonald of Rock Hill was re-elected secretary-treasurer.

Dr. Holland M. Carter of Smoaks, has been awarded a fellowship to cover postgraduate study in public health training sponsored by the National Foundation for Infantile Paralysis.

Dr. W. G. Bishop of Greenwood, has been appointed college physician at Lander College. He succeeds Dr. J. C. Harper, who passed away in July.

Dr. George McF. Mood, Sr., has announced the opening of offices in Charleston for the practice of general allergies and chronic infections.

Dr. George Dean Johnson and Dr. Samuel F. Elmore of Spartanburg have announced the association of Dr. Fred F. Adams in the practice of pediatrics.

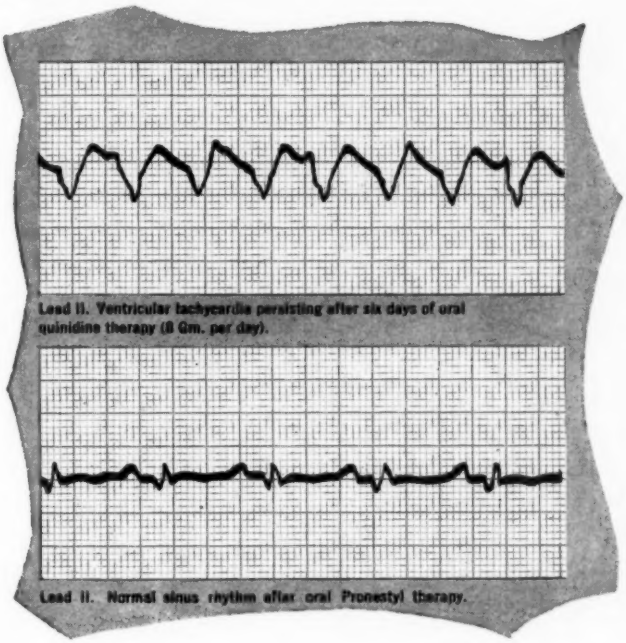
Dr. Watson C. Finger is now associated with Dr. Patricia A. Carter and Dr. T. G. Herbert in the practice of obstetrics and gynecology in Charleston.

a new drug . . .

for the treatment of ventricular arrhythmias

PRONESTYL *Hydrochloride*

Squibb Procaine Amide Hydrochloride



Lead II. Ventricular tachycardia persisting after six days of oral quinidine therapy (8 Gm. per day).

Lead II. Normal sinus rhythm after oral Pronestyl therapy.

Oral administration of Pronestyl in doses of 3-6 grams per day, for periods of time varying from 2 days to 3 months, produced no toxic effects as evidenced by studies of blood count, urine, liver function, blood pressure, and electrocardiogram. Pronestyl may be given intravenously with relative safety.

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Pronestyl Hydrochloride Capsules, 0.25 Gm., bottles of 100 and 1000.
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WOMAN'S AUXILIARY
SOUTH CAROLINA MEDICAL ASSOCIATION

President: Mrs. A. F. Burnside, Columbia, S. C. **Publicity Secretary: Mrs. Weston Cook, Columbia, S. C.**

PRESIDENT'S REPORT TO EXECUTIVE BOARD, OCT. 4, 1950

Being the recipient of the honor to serve as your State President places me in a rather strategic position; that of representing your Auxiliary in the manner in which you deserve to be represented, and attempting to satisfy myself with my regime. I hope I am my most severe critic! Initiation into the duties and the responsibilities of the office which I now hold is self-imposed; some of it fearful but most of it delightful. Since becoming your President in May, 1950, there have been moments of joy, doubt, wonder, prolonged study, consultation, and amazement at the unlimited possibilities for accomplishments in our organization this year. This is your Auxiliary and the success of this year depends on you and your conscientiousness toward the duties of your office. We are a part of the Woman's Auxiliary to the American Medical Association and the Woman's Auxiliary to the Southern Medical Association and deserve recognition only through accomplishment.

I wish to present to you some of the activities of my office since May, 1950:

1. All correspondence, local, state, and national, has been answered promptly. I have been meeting the postman every day, having frequent dates at the Post Office, and have married the typewriter.
2. Requests for information from the National Office and officers have been fulfilled and receipt of materials acknowledged.
3. Stationery was printed and distributed among State Officers, State Committee Chairman, and County Presidents.
4. Letters of welcome and greetings were sent to our Advisory Council, State Officers, State Committee Chairmen and County Presidents.
5. Letters of congratulation were sent to the President, President-elect, and Secretary of the South Carolina Medical Association.
6. Wires were sent to the National President and to the incoming National President at the National Convention in San Francisco in June.

The wires read as follows:

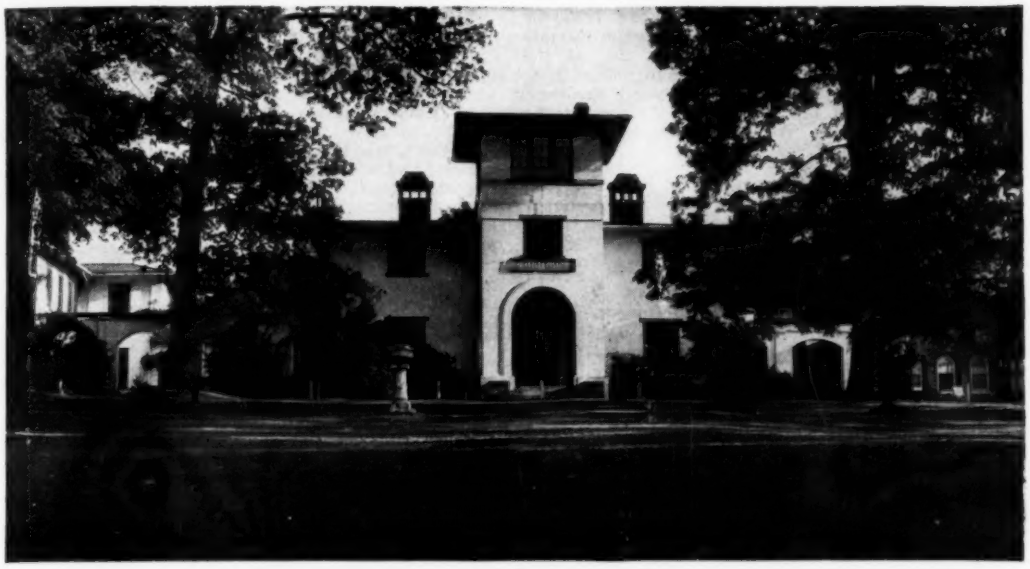
Mrs. David B. Allman
Pres. of Woman's Auxiliary to the American Medical Association
Hotel Fairmont
San Francisco, California

"The Woman's Auxiliary to the South Carolina Medical Association extends appreciation and thanks for your excellent leadership during the past Auxiliary year."

Mrs. Arthur A. Herold
President-elect of the Woman's Auxiliary to the American Medical Association

"The Woman's Auxiliary to the South Carolina Medical Association extends greetings and many wishes for your happiness and success in the new Auxiliary year."

7. An invitation was extended our National President in June to attend our State Convention at Myrtle Beach, May, 1951. She graciously accepted and reservations have been made for her. Let's try to make this Convention worthy of her attendance and one of which we will be proud.
8. Letters of instruction as to duties and responsibilities of office were sent to each State Officer, State Committee Chairman, and County President.
9. Handbooks were ordered and mailed to State Officers, Committee Chairmen and County Presidents.
10. All instructions and material from National Office and National Committee Chairmen received to date have been forwarded to the respective State Committee Chairmen.
11. Constant consultation with your President-elect by letter and telephone concerning every phase of Auxiliary activity has taken place, thus enabling your president to receive varied opinions while familiarizing the President-elect with some of her duties and responsibilities for next year.
12. A brand new committee was added this year, the Committee of Instruction. You will find the duty and object of this committee in the Outline of Objectives for 1950-51.
13. The membership list of the State Auxiliary was revised and is now complete. The list was sent to Mr. M. L. Meadors, Director and Counsel, for use in mailing the Bulletin of the Woman's Auxiliary to the South Carolina Medical Association. One copy was sent to the State Membership Chairman, and another copy was filed in the Recording Secretary's book.
14. Outlines of Objectives for 1950-51 were sent to the members of our Advisory Council, State Officers, State Committee Chairmen and County Presidents. I hope to have other copies made to send our Past Presidents.
15. Your President has consulted the Advisory Council on all important issues such as Health Projects, State activities, and Medical Legislation.
16. Your President met in an ex-officio capacity with the Finance Committee, September 13, in Greenville, S. C.
17. Your Auxiliary was represented by its President at a joint meeting of the Board of Directors and Advisory Committee of the S. C. Heart Association, September 28, in Columbia, for the purpose of bringing correct information concerning the plans and set-up of the Association to the Auxiliaries throughout the state. This Association was founded and is now directed by Dr. John A. Boone of Charleston whom I had the pleasure of meeting and hearing at the meeting. He asked the assistance of our State Auxiliary in promoting the work of the S. C. Heart Association. He stated that the mortality of heart disease was higher than any other disease in South Carolina. More information will be sent to your State Program Chairman who in turn will relay this information to the County Auxiliaries.



The only KEELEY INSTITUTE in The Southeast For The Treatment of Alcoholism Exclusively

The Keeley method of treatment recognizes that acute alcoholism first must be medically treated as a disease before other curative forces can be effective. Each patient is given individual medical attention and guidance toward rehabilitation. Psychotic patients are not accepted.

The Keeley method of treatment combines the latest medically proven and accepted techniques with the experience of over 50 years clinical work in treating alcoholics exclusively. Keeley maintains its own laboratories at Dwight, Illinois, for research in therapy and rehabilitation.

The Keeley Institute is ideally located near the heart of Greensboro, N. C. The spacious grounds occupy an entire city block offering the quiet and seclusion of the country within the city.

The patient is not confined. On the grounds are restful shade trees and gardens, and outdoor recreational facilities. As the patient's condition permits, he is allowed off the grounds several hours each day. Control of each patient is maintained through the close supervision of the medical staff.

Only consent patients are accepted. The conditioned reflex treatment and the use of unnecessary restraint are rejected. Rather, facilities and staff are teamed to create an atmosphere that will enable each patient to understand and accept the responsibility in working toward his own rehabilitation.

Professional inspection is invited.

Male patients chiefly. New facilities for a limited number of women patients.

THE *Keeley* INSTITUTE

Telephone 2-4413 GREENSBORO, NORTH CAROLINA P. O. Box 29

A. F. Fortune, M. D., Medical Director Ben F. Fortune, M. D., Associate Medical Director

18. Your President made her State Medical Auxiliary debut at a luncheon meeting with the Woman's Auxiliary to the Anderson County Medical Society on September 27, at the Anderson Country Club. Mrs. R. Wilson Ball, President of the Columbia Medical Auxiliary, accompanied me. I spoke on "Plans for the Auxiliary Year With Emphasis on Membership."

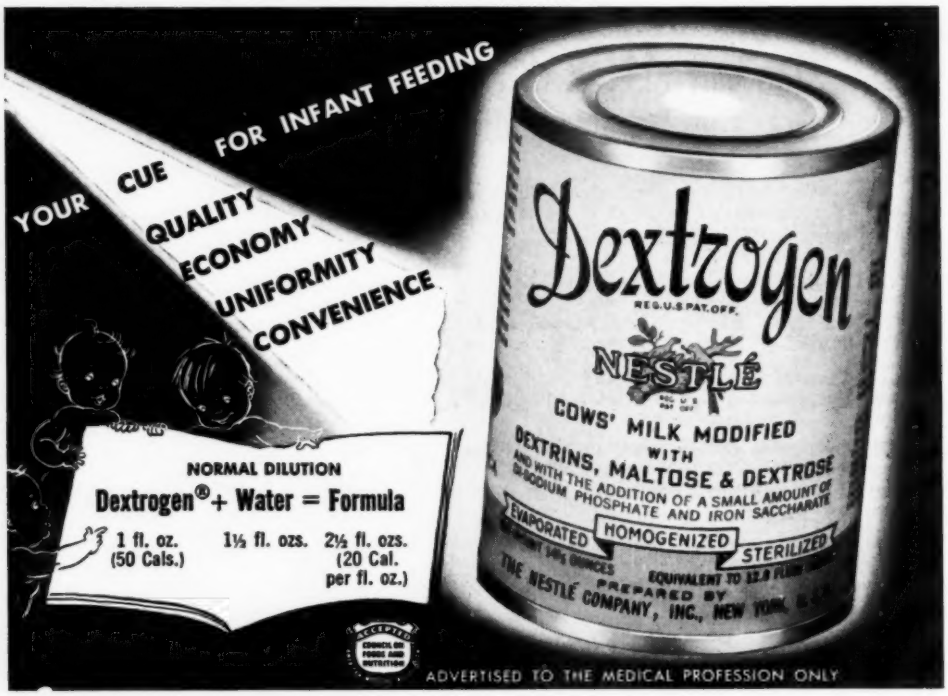
19. Your President-elect and your President plan to represent you at the Conference of Presidents, Presidents-elect, and National Committee Chairmen in Chicago, November 2-3. We hope to have some worthwhile information for you upon our return.

20. Your President has been invited to attend and will represent the Auxiliary at the open meeting of the S. C. State Nurses' Association, October 5, in Columbia. The Nurses' Association is one of the few major groups who have not taken a stand against compulsory health insurance and we hope they see fit to do so at this annual meeting.

21. A most cordial invitation has been extended your President by the President of the Woman's Auxiliary to the Southern Medical Association to attend their convention in St. Louis, Mo., November 13-16. If your State Chairman of Instructions can put up with me at another Convention, we plan to attend.

I want to take this opportunity to thank the Advisory Council and the past presidents for their advice on important matters and to thank the state Officers, State Committee Chairmen, and County Presidents for their continued cooperation and response to my many requests. I want to thank the County Auxiliaries for their kind invitations to meet with them throughout the year and am looking forward with much pleasure to every occasion. May your interest and activities in Auxiliary work this year be a source of satisfaction to you, your community and to your Auxiliary. Thank you.

Mrs. Alfred F. Burnside, Pres.
Woman's Auxiliary to the
S. C. Medical Association



The Fulton County Medical Society

announces

The Atlanta Graduate Medical Assembly

February 5, 6 and 7, 1951

Municipal Auditorium Annex — Atlanta, Georgia

SPEAKERS

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DR. RICHARD B. CAPPS, Northwestern University: *Gastroenterology.*
DR. FRED W. RANKIN, Lexington, Ky.: *Carcinoma of Bowel.*
DR. WINCHELL McK. CRAIG, Mayo Clinic: *Neurosurgery.*
DR. CARLETON B. PEIRCE, McGill University: *Radiology.*
DR. GRAYSON L. CARROLL, St. Louis: *Antibiotics.*
DR. T. LEON HOWARD, Denver: *Urology.*
DR. WALTMAN WALTERS, Mayo Clinic: *General Surgery.*
DR. JOHN R. MOTE, Chicago: *ACTH.*
DR. JOHN R. GODWIN, Ochsner Clinic: *Oncology.*
DR. GEORGE J. THOMAS, University of Pittsburgh: *Anesthesiology.*
DR. SAMUEL PROGER, Tufts Medical School: *Cardiology.*
DR. JOHN LOUIS PARKS, George Washington University: *Obstetrics.*
DR. J. S. SPEED, University of Tennessee: *Orthopedics.*
DR. IRVINE H. PAGE, Cleveland Clinic: *Hypertension.*
DR. WARREN W. QUILLIAN, Coral Gables, Fla.: *Pediatrics.*
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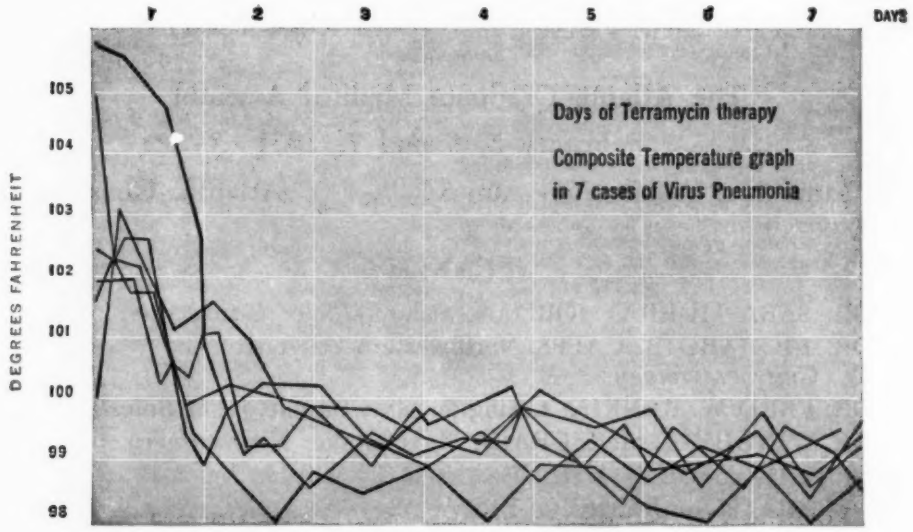

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1. *Blake, F. G.; Frieu, G. J., and Wagner, R. R.: Yale J. Biol. and Med. 22:495 (July) 1950.*
2. *Herrell, W. E.; Heilman, F. R.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Mees. Mayo Clin. 25:183 (Apr. 12) 1950.*

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Competition in this prize contest is open to scientists generally; not necessarily physicians.

The award will be made by a committee of judges selected to pass on the essays by the Research Aid Committee of the American Dermatological Association and the decision of the judges shall be final. This contest is planned as an annual one, but if in any year, at the discretion of the Research Aid Committee and judges, no paper worthy of a prize is offered, the award may be omitted.

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